

**Understanding the Process of Portfolio-Supported Learning
& Assessment (PSLA) with Reference to the Learning
Attitudes of Postgraduate Medical Students (SpRs)
at the Queen's School of Anaesthesia.**

Thesis submitted

by

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THIS THESIS IS
HUMBLY DEDICATED TO:

MY FATHER,
LATE SHRI K. P. GUPTA
&
MY GURU,
LATE DR. M. K. SHRIVASTAVA

WITH REVERENCE AND REGARDS,
SHASHI KANT GUPTA

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Declaration

This is to certify that none of the material offered in this thesis has previously been offered by me for a degree at any other university or institution.

Shashi Kant Gupta,
4th July 2005
Bhopal, India.

Abstract

Rapidly changing technology, the knowledge explosion and socio-economic transformations owing to globalisation have made it necessary for most people to learn throughout life. The terms such as 'lifelong learning' and 'continuous professional development' have become part of the educational lexicon as never before. Yet the formal education system alone cannot provide lifelong education for career development and there is research interest in promoting individual responsibility for becoming a self-directed autonomous learner. However, this idea is inconsistent with the prevailing teaching and assessment practices, namely, didactic teaching methods and norm-referenced summative assessment, where students are excluded from the process of deciding targets for learning, setting criteria and standards for assessment, designing assessment schemes and implementing them.

Methods and techniques which are claimed to transfer the control of the educational and assessment process from teacher to student such as 'Problem-Based Learning' and 'Portfolio-Based Assessment', have been seen by researchers in the field of assessment as suitable alternatives to foster autonomy and intrinsic motivation in students. Although medical education in the UK has taken the lead in adopting 'Problem Based Learning', teacher education is considerably ahead in the case of 'Portfolio-Based Assessment'. Recently, medical education has also started to introduce 'Portfolio-Based Assessment' in some colleges. However, its effectiveness in the context of medical education is yet to be established.

This study, therefore, attempts to understand the process of 'Portfolio-Based Assessment' with reference to the learning attitudes of postgraduate medical students (SpRs) in the context of the Queen's School of Anaesthesia situated in the north of England.

The basic aim of this study was to evaluate the effectiveness of PBA in transforming the attitudes of the SpRs. The study revealed that it was very difficult to measure any change in attitude. Moreover, it was realised that in comparison to measuring change in attitudes it was more important to understand the process of intervention of the PBA in order to evolve remedial measures to make it more effective. This early finding considerably changed the focus of the study, research questions and methods. I also realised that the relationship between the effectiveness of the portfolio and the attitudes of SpRs was symbiotic, and so it was also important to understand these attitudes in order to understand the dynamics of portfolio use.

The final aim was to understand the process of PBA, rather than to prove any particular theory or measure change in attitudes. Hence, the methodology adopted was more qualitative and naturalistic in nature than quantitative, with the aim of studying the process of PBA through a flexible methodology, and without any pre-conceived theories about the portfolio.

However, findings concerning the process of PBA are situated in my understanding of theories of learning and current approaches to assessment within a particular context.

The fieldwork combined two separate questionnaires distributed to all 90 SpRs, of whom about 50% responded. In order to understand their perceptions regarding the portfolio, non-directive interviews were carried out with 24 SpRs. Content analysis of the 24 portfolios was carried out to explore the extent to which the SpRs had developed the portfolios and the amount and type of reflection in which they engaged. Non-directed interviews and the content analysis of the portfolios raised questions about the SpRs' professionalism and their attitudes towards self-directed learning. To obtain a better understanding of these issues, focused interviews of 16 SpRs, based on the content analysis of the portfolios, were conducted.

The understanding developed from this study and the findings and suggestions that have emerged from it are applicable mainly to postgraduate medical education. However, three propositions emerged from this study which may be relevant to the use of the portfolio for professional development in other educational contexts:

- (i) The term 'Portfolio-Based Assessment' is a misnomer, since a portfolio does not become so central to the assessment process that it can be used to assess all types of ability. It may be concluded that a portfolio only supports the existing assessment system.
- (ii) The process of portfolio preparation itself leads to learning, while in the case of most of the other assessment processes the learning loop is completed after assessors have provided feedback. The portfolio should therefore be treated as a tool for both assessment and learning, and the term 'Portfolio-Supported Assessment and Learning (PSLA)' is more appropriate.
- (iii) Other assessment methods may be used simultaneously for summative as well as for formative assessment without affecting the quality of formative assessment to a great degree. However, the use of portfolio for both purposes of assessment simultaneously creates a conflict and to a large extent reduces its potential for encouraging the trainees to engage in self-assessment and reflection, thus defeating the basic purpose for which it was introduced. It may be concluded that the same portfolio should not be used for both purposes of assessment.

The emergence of the above propositions from the study may be considered as an original contribution to knowledge in this field. Further debate and studies are required in order to develop theories based on these propositions.

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CONTENTS

Page Nos.

Chapter 1 1-18

Medical Education: Inculcating Generic Skills and Attitudes for Continuous Professional Development

1.1 Introduction	1
1.2 Knowledge, Learning and Assessment	7
1.3 The Portfolio as a Perceived Catalyst for CPD	12
1.4 Rational and Research Questions for this Research	13

Chapter 2 19-64

Needs of Professional Education and the Portfolio

2.1 Introduction	19
2.2 Ability to Continuously Develop Technical Expertise: Theories Applicable to Medical Education	19
2.2.1 The Dreyfus and Dreyfus Model of Skill Acquisition	20
2.2.2 Hammmond's Cognitive Continuum Theory	22
2.2.3 Theories of Clinical Decision Making	23
2.3 The Role of Reflection in Learning from Experience	24
2.3.1 Meaning of Reflection	26
2.3.2 Traditions and Purposes of Reflection	27
2.3.3 Technical Enquiry to Critical Enquiry	33
2.3.4 Process of Reflection	35
2.3.5 Conditions which Foster Reflection	38
2.3.6 Is it Possible to Teach to Reflect?	42
2.4 How can We Make Professionals Capable of Refining the Profession?	45
2.5 Implementation of Theories of Experience Based Learning for Professional Development in Medical Education in the UK	48
2.6 Problem Based Learning and Self Directed Learning	49
2.7 Portfolio and Learning for Professional Development	53
2.8 Curriculum and Portfolio	58
2.9 Types of Portfolio	59
2.10 Portfolios in Medical Education in the UK	61

Chapter 3

65-111

Current Approaches to Educational Assessment and Portfolios

3.1	Current Approaches to Educational Assessment	65
3.1.1	The Measurement Model v/s The Standard Based Model	
3.1.2	Quantitative Nature of Learning v/s Qualitative Nature of Learning	
3.1.3	Assessment of Decontextualised Knowledge v/s Assessment of Situated Knowledge	
3.1.4	Effect of Socio-Cultural Setting on Assessment	
3.2	Effect of Assessment on Autonomy and Motivation	77
3.3	Self Assessment: a facilitator of autonomy and motivation	80
3.4	Concept of Reliability and Current Approaches to Assessment	82
3.5	Concept of Validity and Current Approaches to Assessment	84
3.6	Assessment of Professional Behaviour in Medical Education	89
3.7	PBA in the Light of above-mentioned Approaches and Concerns	96
3.8	Portfolio and the Concepts of Reliability and Validity	103
3.9	Concerns and Confusions about PBA	105

Chapter 4

112-164

Methodology: Being Flexible and Open Minded

4.1	Introduction	112
4.2	My Ontological and Epistemological Beliefs	112
4.3	The Purpose of This Research Study and Appropriate Methodology	114
4.4	Approach Based on Hermeneutic Phenomenology	119
4.5	Influence of Topic of Study on Methodology	121
4.6	Designing the Study and Choosing the Methods	128
4.6.1	Unfeasibility of Participant Observation	
4.6.2	Questionnaire	
4.6.3	Interviewing	
4.6.4	Non-directive Interview	
4.6.5	Practical Issues: gaining and maintaining access	
4.6.6	Content Analysis of the Portfolios	
4.6.7	Focus Interviews	
4.7	Loose Triangulation	147
4.8	Analysis of Data	149
4.8.1	Issues Related to Sampling	151
4.8.2	Constant Comparison and Theoretical Sampling	154

4.9 Ethical Dilemmas	155
4.10 Issues of 'Reliability' and 'Validity'	158

Chapter 5

Portfolio: A Learning Technique Haunted by Previous Experiences about Assessment. 165-355

5.0 Overview of Analysis 165-169

5.1 Present Assessment System at QSA 170-209

5.1.1 Part A: The Content Method, Criteria and Standards of Assessment 171

5.1.2 Part B: Quality of the Feedback Provided by the Consultant during In Training Assessment 188

5.1.3 Part C: The Capability of Consultants to Assess SpRs' Performance 194

5.1.4 Part D: SpRs' Overall Opinion of In-Training Assessment 202

5.1.5 Summary of SpRs' Perceptions about the Existing Assessment System 206

5.2 Attitudes of Trainees towards Different Component of Training 210-236

5.2.1 Teaching Juniors 212

5.2.2 Attending Seminars Given by Seniors 213

5.2.3 Medical Audit 215

5.2.4 Conducting Research and Presenting it in a Seminars/conferences 217

5.2.5 Reading Medical Journals and Publishing in Them 219

5.2.6 Time Management 222

5.2.7 Hospital Administration and Management Tasks 224

5.2.8 Communication skills 225

5.2.9 Belief in Potential of Training Programmes to Improve Managerial and Generic Skills 229

5.2.10 Summary of SpRs' Perception towards Non-Clinical Component of Training 234

5.3 Perception of Trainees about PBA 237-295

5.3.1 SpRs' General Perceptions of the PBA 238

5.3.2 Attitudes towards Formative Assessment, Learning and Portfolio 246

5.3.3 Portfolio Format 265

5.3.4 Implementation of PBA at QSA 270

5.3.5 Existing Assessment System 277

5.3.6 PBA and Existing Assessment System 285

5.3.7 Summary of Findings 290

5.4 Reluctantly Completed Portfolios	296-304
5.4.1 Amount and Type of Reflection in Portfolios	302
5.4.2 Findings from the Content Analysis of Portfolios	303
5.5 Attitude of Self -Directed Learning: necessary condition for PBA or an effect of PBA ?	305-355
5.5.1 Use of Portfolio	306
5.5.2 Effect of the Portfolio on Reflection	317
5.5.3 Self-Assessment: tension between portfolio and past experiences of assessment	322
5.5.4 Vision of Professionalism	326
5.5.5 Learning from Experience	332
5.5.6 Portfolio, RITA and Appraisal	335
5.5.7 Non-Clinical Components of Training	336
5.5.8 Preferences of Trainees for Different Non-Clinical Activities	340
5.5.9 Summary of Findings	350
 Chapter 6	
Discussions and Conclusions	356-407
6.1 R.Q. I: What are the Attitudes of SpRs towards Portfolio-Based Assessment?	356
6.2 R.Q. II: To What Extent are SpRs Self-Directed learners?	364
6.3 R.Q. III: Which type of Reflection can PBA Promote amongst SpRs, and to what extent?	367
6.4 R.Q. IV: To What Extent Does PBA Enhance Self-Assessment, Ipsative Assessment, Formal Formative Assessment and Summative Assessment?	374
6.5 R.Q. V: How Does PBA Fit into the Existing System of Learning and Assessment at the QSA?	377
6.6 R.Q. VI: How Can the Existing System of PBA be Further Improved?	389
6.7 Recommendations	402
6.8 Need for Further Research	406
 References	408-467

List of Appendixes

Sl. No. of the Appendix	Title of the Appendix
(i)	Glossary of Acronyms and Abbreviations
(ii)	Speciality of Anaesthesia : a general introduction
(iii)	System of Training and Assessment in Medical Education at UK
(iv)	Proposed Structure of Portfolio at QSA
(v)	My Epistemological and Ontological Beliefs
(vi)	Final Research Questions
(vii)	Questionnaire Regarding Record of in Training Assessment (RITA)
(viii)	Questionnaire Regarding Various Components of the Training
(ix)	Questions to be raised in non-directed interview
(x)	Questions asked in focused interviews
(xi)	Summary of portfolios.
(xi) (a)	Excerpts of reflection from portfolios
(xii)	Categories generated from first interviews.
(xiii)	Categories generated from second interviews.
(xiv)	Appraisal format
(xv)	Research questions as basis for field-work
(xvi)	Summary of typology of autonomy proposed by Ecclestone (2000a: 149)
(xvii)	Physicians' Charter

Chapter 1

Medical Education: Inculcating Generic Skills and Attitudes for Continuous Professional Development.

1.1 Introduction

There is a renewed interest in medical education in developing professionalism in would-be medical professionals. (Cruess and Cruess, 1997; Hensel and Dickey, 1998; Swick, 1998). There has been a spurt in the number of medical education papers published on the issue of professionalism (Ginsburg *et al.*, 2000). The renewed interest in education concerning professionalism is also rooted in growing realisation of the deterioration in professional values in the medical profession (Sox, 2002). However this does not necessarily mean that doctors are not professional enough. According to Bouly du Clair (2000:2),

“The vast majority of doctors are good learners and have always just got on with their own continuing medical education and professional development—that is what being a professional means. However the changing political climate and need to be more accountable mean that doctors now have to demonstrate that they are developing professionally.”

These concerns are thus related more to socio-political issues than to the technical competence of professionals. As a result of these concerns, professional bodies such as the ABIM Foundation, ACP-ASIM Foundation and the European Federation of Internal Medicine came together for a project called ‘Medical Professional Project, 2000’. The purpose of this project was to define medical professionalism and to increase awareness and education in this area (Medical Professionalism Project, 2000). The preamble to the physicians’ charter developed by this project states that:

“At present the medical profession is confronted by an explosion of technology, changing market forces, problems in health care delivery, bio-terrorism, and globalisation. As a result, physicians find it difficult to meet their responsibility to patients and society. In these circumstances, reaffirming the fundamental and universal principles and values of

medical professionalism, which remain ideals to be pursued by all physicians, become all the more important.” (Sox, 2002:2)

The implementation of these ideas requires a clear definition of medical professionalism. However, this is such a complex and abstract concept that it is difficult to arrive at a universally acceptable definition. Yet according to Swick (2000), there can be agreement about some of its core characteristics, and medical professionalism can be defined normatively. Moreover, Swick (*ibid.*) clarifies that professionalism must be considered at two levels: individually and collectively. While it is the responsibility of various professional bodies and organisations providing health services to uphold professionalism collectively, to inculcate the professional qualities individually is the responsibility of oneself and the medical education providers. The scope of this research is limited to medical education and hence it will be appropriate to study the normative definition of professionalism with regard to individual professionals. According to The Physicians’ Charter developed by the Medical Professionalism Project (Sox, 2002) the Ten Commandments of professional responsibility require a commitment to:

- (i) professional competence
- (ii) honesty with patients
- (iii) patient confidentiality
- (iv) maintaining appropriate relations with the patients
- (v) improving quality of care
- (vi) improving access to care
- (vii) just distribution of finite resources
- (viii) scientific knowledge
- (ix) maintaining trust by managing conflicts of interests
- (x) professional responsibility

From a study of the description of these professional responsibilities (Appendix no. xvii), it may be inferred that:

- (i) The qualities needed to fulfil these responsibilities include not only technical skills but also generic skills.
- (ii) Most of the above can be acquired only if professionals have certain attitudes.
- (iii) Developing excellence in these qualities is a lifelong endeavour.

A key question for academics is therefore how to make would-be professionals interested in striving to develop expertise (competency in technical as well as generic skills) and professional attitudes throughout their careers so that they can live up to these expectations. The current literature shows that professional bodies at the helm of medical education have rightly taken note of this issue. The General Medical Council's document 'Tomorrow's Doctors: recommendations on undergraduate medical education' (GMC, 1993) notes its aspirations as follows:

"We can at best strive to educate doctors capable of adoption to change, with minds that can encompass new ideas and developments and with attitudes to learning that inspire the continuation of the educational process throughout the professional life."

Similarly, the Scottish Deans Medical Curriculum Group (2000), in its outcome-based model, has decided 12 curriculum outcomes for a Scottish doctor at graduation: of these twelve, one is 'an aptitude for personal and professional development'. It is clear from the above that both the GMC and the SDMCG have given a direction for preparing doctors who can appreciate the need for continuous professional development. However, these concerns are not fully understood by all, as echoed in the following statement:

"The speciality training programmes in the UK have been radically changed in the past few years..... [allowing] the next step of the process, CPD to go ahead with a sound basis on which to build. It was perhaps not clear to all at the beginning of the whole process that this, the long-term continuing education of the profession, was also an objective. Without it, CPD could not have been effectively introduced. Many of the principles therefore have been taken on board, and, for example, many of the programmes have associated masterships and research training as part of the process. There is much greater awareness of the attitudinal aspect of the training,"

(Calman, 2000:450).

It is clear from the above quotation that it has been appreciated in principle in the UK that specialist training programmes should develop certain attitudes in trainees so that they can take care of their CPD, but there are problems with the osmosis of this concept. Moreover, Calman (*ibid.*) has highlighted the importance of the development of certain attitudes in CPD. He explains the reason for using the nomenclature CPD in place of CME: according to him, CME was too narrow a term and covered only 'medical' issues, and therefore might exclude other areas of interest, such as managerial skills and attitudes.

However, there are questions about what exactly CPD means and how it can be achieved. According to Peck *et al.* (2000:1):

"CPD is the process by which health professionals keep updated to meet the needs of the patients, the health service and their own professional development. It includes the continuous acquisition of new knowledge, skills and attitudes to enable competent practice. The term CPD acknowledges not only the wide-ranging competence needed to practise high quality medicine but also the multidisciplinary context of patient care."

But as far as the implementation of these concepts is concerned, Stanton and Grant (1997) have criticised the current approach to CPD in the UK, since present CPD schemes are based on acquiring credits. They argue that the advantage of this system is that time devoted to CPD can be measured and recorded. However, the disadvantage is that it encourages a 'bums on seats' approach by both participants and providers of education. They further suggest that it is the quality and relevance of the activities which are important, and not the quantity. Grant and Chambers (1999) also emphasise the need for a shift away from credit counting towards a process of self-accreditation and reflection, recording learning that has occurred and applying it to practice. In their view, no method can be prescribed for CPD in all situations, and the selected method will depend on personal preferences and the context of practice. However, they suggest that methods such as self-assessment, journal reading, case discussions and visiting other departments or practices may prove effective.

As far as providing CPD effectively to medical professionals is concerned, Eraut (2001:11) suggests that most CPD in the case of the medical profession can be achieved by on-the-job learning:

“..... The most important question to ask about an off-the-job CPD event is not ‘Did people like it?’ or even ‘Were the intended learning outcomes achieved?’ but ‘What happened next?’ That cannot be only the provider’s responsibility. But it does suggest contributions designed to clarify precisely what further on-the-job training may be needed and how it might be approached, and to establish networks for the mutual support of those learning a new practice, might provide the added value needed for a positive effect on patient outcomes. Beyond that, responsibility for CPD effectiveness lies with the learners and the organisations which employ them. ”

The above quotation clearly emphasises the importance of on-the-job learning even after attending off-the-job training programmes, and it also highlights the fact that the ultimate responsibility for learning lies with the learner. A similar view is expressed by Davis *et al.* (1995), who argue that learning that occurs in the context of the daily workplace may prove more relevant and may lead to better practice. According to Charlton (2001), work-based learning is perhaps the most used but least recognised learning method in CPD. He suggests that it may comprise problem solving, feedback through the results of investigation, specialist opinions, observation, reflection on difficult cases, discussion of critical incidents and education by the patients.

It may be concluded from the above discussion that education providers should try to inculcate skills required for ‘on-the-job-learning’ in would-be professionals for their continuous professional development. However, Marsick & Watkins (1990) warn that ‘on-the-job-training’ should not be confused with ‘on-the-job-learning’. According to them ‘on-the-job-training’ is a formal structured and planned educational activity, while in the case of on-the-job-learning, the learner, through experiential activity, interprets work-related experience. The learner even organises the learning experiences and interprets them on his/her own; s/he may request for help to peers or teachers based on his/her requirement

and choice. The real challenge for education providers is thus to develop the skills and attitudes required for ‘on-the-job-learning’ in would-be professionals during ‘on-the-job-training’ (namely during pre-registration officer to specialist registrar training). However, before proceeding further in this direction, it is necessary to identify those generic skills and attitudes which must be inculcated in would-be professionals so that they can develop and maintain their professionalism.

The study of contemporary literature (Sox, 2002; Swick, 2000; Khera *et al.* 2001; Pencheon, 1998) suggests a need to foster a number of attitudes and generic skills those are necessary for professional development. Of these, the most commonly recommended attitudes and skills are listed below:

Attitudes:

- (i) Ethical attitudes
 - (a) Commitment to the interests of one’s patient over one’s own interests.
 - (b) Adherence to the principle that it is the duty of the doctor to do right and to avoid doing wrong, while patients have the right to expect no harm to them due to treatment.
 - (c) Commitment to patients’ confidentiality.
- (ii) Response to societal needs, namely, a commitment to the just distribution of finite resources and a commitment to improve access to care.
- (iii) Commitment to humanistic values such as honesty and integrity, caring and compassion, altruism and empathy, respect for others and trustworthiness.
- (iv) Exercising accountability for themselves and for their colleagues.

Generic Skills

These skills include the ability to:

- (i) recognise and accept limitations in one’s knowledge and clinical skills;

- (ii) continuously improve one's knowledge, skills and attitudes;
- (iii) exercise independent judgement in complex and uncertain situations;
- (iv) reflect upon their actions and decisions;
- (v) manage the change;
- (vi) work in a team as a member and as a leader (this includes communication skills);
- (vii) coach and train juniors (teaching and training skills);
- (viii) contribute to the profession (by research and other academic activities);
- (ix) manage themselves (manage time efficiently);
- (x) administer (manage the human, financial and other resources of the organisation).

The mere inclusion of these attitudes and generic skills in the curriculum is not sufficient; the key question to be answered is how to develop some of the abilities listed above: namely, 'recognise and accept limitations in one's knowledge and clinical skills'; 'continuously improve one's knowledge, skills and attitudes' and 'reflect upon their actions and decisions'. There has not been any conscious efforts to build these attitudes and abilities since it has been assumed that trainees would learn them from their superiors through apprenticeship. Batenburg *et al.* (1999: 489) argue that:

"Actual training of professional attitudes has seldom been an explicit part of the medical curriculum. It was assumed to happen automatically as students proceeded: attitude development remained a hidden part of the curriculum."

Engel (1994) suggests that these concerns have generated a debate about suitable methods to develop attitudes and generic skills and education is currently undergoing a paradigm shift.

1.2 Knowledge, Learning and Assessment

Moreover, a new dimension is added to the issue of learning as a result of the argument that knowledge is essentially constructed, rather than received, by the learner, and that what is taught must build on or be connected to what the students already know (Kolb,

1984; Schon, 1983; 1987). This requires that practice be associated with learning and assessment. There is also a growing understanding that knowledge created apart from systematic research namely, during day-to-day practice, is not well taken care of and is hampering the growth of professionals as well as of the profession. Eraut (1994:56) argues that:

".....The knowledge development potential of practitioners is under exploited.....Much of their knowledge creation is particularistic, transferred from one case to another only by associative or interpretative generalisations. Further reflection and discussions can enhance the knowledge derived from case experience and organise it in ways that encourage its further development. But there is no tradition of engaging in such behaviour in most professional work contexts; and knowledge development receives little attention in an action-oriented environment. Moreover, communication between practitioners is such that only a small proportion of the newly created knowledge gets diffused or disseminated. Thus there is no cumulative development of knowledge over time: the wheel is reinvented many times over."

These concerns have their roots in a debate about the nature of the practical knowledge (in comparison to theoretical knowledge, generated by systematic research), which is created and used by professionals during day-to-day practice. This debate dates back to the days of Aristotle (quoted by Grundy, 1987). However there has been an intermittent lull and flip in this debate. Philosophers and academics at different times have emphasised that practical knowledge is created during practice and that reflection on experience is an important aspect of learning process [for instance Rousseau in 18th century (1979, trans. by Bloom) and Dewey (1933)]. More recent debate has focused on the development of practical knowledge, this debate was triggered by Polanyi (1967) and is carried forward by Argyris and Schon (1974), Kolb (1975), Schon (1983,87) and Eraut (1994). Dowie (2000: 241) draws on Gadamer's work (1996) on Aristotle and introduces the word *phronesis* to practical knowledge:

"Like techne or craftsmanship, phronesis is concerned with the practical but unlike techne it does not refer to the ability to deploy necessary skills. Rather, when a clinical decision has to be made in a given situation, phronesis brings reflection to bear upon the appropriate action to take, depending on the concrete circumstances. The reflection involved is entirely specific to the situation rather than the unthinking application of some

formulaic approach. In medical education such reflection arises in situations where for some reason the information and knowledge currently in possession are inconclusive on how to proceed.”

This views and those of Eraut (1994: 56) highlight the need for reflection on practice, discussions based on those reflections and the dissemination of the knowledge so created for the generation of practical knowledge and the growth of the profession. Schon (1983) suggests that, normally, professionals learn continuously from their experiences, but a considerable proportion of this learning is subconscious and adds to tacit knowledge, and hence it is difficult to verify such knowledge. Reflection on performance may bring learning from a subconscious to a conscious level, thus making it easier to express this learning. Schon further argues that professionals normally work in isolation and in an autonomous way and hence most of the time no one is there to point out their mistakes. Yet it is crucial for them to assess their competence to receive functional feedback so that they can improve and confirm their knowledge base and skills (Tomlinson and Saunders, 1995). Since professionals work in a complex situation, most of the time it may be difficult for others to comprehend the situation in order to assess their performance and to offer feedback for improvement, thus the only possible method for the professional is to assess his/her own performance (MacIntyre, 1999). However, the purpose of such assessment should be to bring about improvement in individual performances and not to make comparisons with others. Ecclestone (1999; 2000b; 2002) argues that traditional norm-referenced assessment methods prohibit deep engagement with the content and process of learning since they engender extrinsic motivation and subdue intrinsic motivation and autonomy in learners. In a similar vein, Boud (1995; 1997) emphasises that traditional authoritative assessment methods inhibit the growth of autonomy and motivation in learners, while self-assessment fosters it, since it is akin to reflection. Boud (1997:34) suggests:

“The list of features likely to promote reflection directly parallels features likely to promote self-assessment. The similarities are such that it is not useful to consider reflection and self-assessment as entirely separate ideas. Self-assessment is a reflective activity and when well designed, develops reflective skills.”

This suggests that self-assessment is an important method for professionals to improve their performances and achieve professional growth. Wenger (1998) added a new dimension to this debate by proposing the concept of ‘communities of practice’: a community of practice is a group of practitioners sharing their learning and creating a shared knowledge. Boreham (2000) defines this type of knowledge as ‘Collective Professional Knowledge’, but points out that practitioners must possess proper communication skills in order to develop and maintain this collective knowledge. This means, that communication skills are required not only for individual performance but also for the creation of collective knowledge.

Moreover, Eraut (1994: 30) argues that only training and development of individuals, and their solo efforts are insufficient to create practical knowledge since it may be difficult for individuals to change the practice in organisational settings owing to the existence of rigid standards and conventions. Nutley and Davis (2001) also suggest that organisational arrangements can foster or inhibit the process of learning or knowledge creation. According to them, organisational cultures and structures shape the way in which individuals engage with the learning process. This also influences whether and how the organisation harnesses the learning achieved by individual members.

Von Krogh (2000) proposes the concept of the ‘enabling context’, which means that organisations should create a context or an environment which encourages and nurtures the creation of knowledge. He suggests four types of interaction which contribute to an overall enabling context: originating, conversing, documenting and internalising.

Research by Fish and Coles (1998:256) has shown that the sharing of written reflection on self-performance assists with learning from colleagues' experiences, leading to improvements in professional practice. They argue:

"This is because they describe the artistry of their practice in consciously shaped narrative which acknowledges its complexity. This means that the power of their writing conveys more than what appears on the surface of the words used, and eloquently reveals some of their deeper (tacit), unrecognised levels of personal theories (beliefs, assumptions and values) that lie under their practice. And this in turn enables the reader who looks with critical appreciation to see something more than the writers themselves can articulate. Where the work focuses on the most inflammable of elements, professional judgement (which is often at once fleetingly made and yet based upon profound moral issues), critical appreciation, which senses the more subtle of nuances, is uniquely equipped to attend what is being said and therefore to learn from it."

But this concept of learning from the experiences of others raises the question of how practical knowledge created by one professional can be useful for other professionals working in different contexts. Fish and Coles (*ibid.*) have suggested that the writing down of reflections by professionals is akin to writing a case study, which can be used by others. This is an important observation, since the case study approach has already been accepted as a method of research, even in the case of theoretical knowledge (Yin, 1989). Golby (1994) argues that a case study should not be seen as a portrayal of uniqueness; rather, it should be considered as a particular manifestation of a general case, and both its individual nature as well as its generic nature should be discussed. He further argues that in understanding a case it is necessary to see and relate it in some way to a wider context. This involves a need to be aware of the context (historical, technical, political, cultural and social).

Fish and Coles (*ibid.*) further emphasise that the expertise of the professional lies in having a body of knowledge and in being able to access that knowledge in relation to a particular case; whilst writing down reflections in the form of a case study involves relating the experience to wider traditions. According to above discussion, therefore, the iterative process of selecting appropriate knowledge, applying it, reflecting upon the outcomes and

relating the reflection in writing to the existing body of knowledge, is a kind of research. This process is termed 'insider practitioner research' by Fish and Coles (*ibid.*).

The above discussion therefore suggests the following characteristics of successful CPD:

- (i) There is a need to develop practical knowledge, generic skills and attitudes in professionals for effective CPD and for the growth of the profession.
- (ii) In order to develop practical knowledge, generic skills and attitudes training alone is not sufficient. For this to happen, reflection by professionals on their experiences is also needed. Self-assessment promotes reflection and hence it should be encouraged.
- (iii) Writing down reflections leads to better understanding, and sharing written reflections in a larger group generates discussion and helps to relate isolated individual experience to the wider context, leading to the creation of practical knowledge and to the dissemination of this knowledge within a 'community of practice'
- (iv) This requires four types of interaction which contribute to an overall enabling context: originating, conversing, documenting and internalising.

1.3 The Portfolio as a Perceived Catalyst for CPD

With reference to the above scenario, in most professions the portfolio is being considered as a tool which provides scope for documenting or writing down experiences, reflecting on those experiences and sharing those reflections with others, and hence the portfolio works as a catalyst for CPD (Borko *et al.*, 1997; Fung *et al.*, 2000; Wolf *et al.*, 1995). Moreover, it also reveals differences between self-perception and external information about one's own abilities (Haertel, 1990). On the basis of these theories, self-assessment is being

introduced in the medical education curriculum with the aim of drawing students' attention to their own behavioural skills, professional values, conflicts and the processes of resolving those conflicts. A portfolio is one of the most commonly used tools for this purpose (Lonka *et al.*, 2001; Snadden and Thomas, 1998). Forker and McDonald (1996), suggest that a portfolio can be used to assess a range of abilities, such as critical thinking, problem solving and clinical decision making in the health care system. Redman (1994) suggests that portfolios are suitable for developing the habit of self-assessment. And, in theory at least, it is also possible to encourage autonomy and motivation if there is a 'critical conversation' taking place on an equal footing during the feedback process. However, a number of royal colleges and schools have attempted to introduce portfolios and other self-assessment techniques in different ways, and the focuses of these are also different and varied (Challis, 2000).

Wolf *et al.*, (1991) and Smith and Tillema (2001) argue that a portfolio not only provides an assessment opportunity which fosters autonomy and intrinsic motivation, but it also helps directly in learning, in contrast to other assessment methods where the learning loop is completed only when somebody else provides feedback after evaluation. In the case of a portfolio, the process of preparation itself is a learning experience. Bolton (2001) suggests that writing down reflections leads to professional development. Engel (1994) draws attention to current debate about cognitive theories of learning and argues that, if one believes that knowledge is essentially constructed rather than received by the learner, what is taught must build on or be connected to what the students already know. This requires that practice be associated with learning and assessment. A portfolio can help since it links practice with assessment and reveals the learning characteristics and habits of the student's mind. Thus a portfolio is considered as a unique tool which links practice, assessment and learning with each other (Boud, 1997). The current debate about theories of learning and

approaches to assessment, with reference to professional education in general and medical education in particular, and the relevance of the portfolio in this context are discussed in detail in Chapters 2 and 3 of this thesis: “Needs of professional education and the portfolio” and “Current approaches to professional assessment and the portfolio”, respectively.

1.4 Rationale and Research Questions for this Research

In the broader context of debate about the quantity of medical education and CPD, ‘Portfolio-Based Assessment’ was introduced for the Specialist Registrars’ (SpRs’) training at Queen’s School of Anaesthesia (QSA) in the north of England in 1999. A study of SpRs’ training in anaesthesia followed at the QSA and the ‘The CCST in Anaesthesia: A manual for trainees and trainers’ (Royal College of Anaesthetists, 2000) document indicated that the attitudes and skills as decided by the Medical Professionalism Project (Sox, 2002) described above are already part of the curriculum. Nonetheless, the curriculum does not make explicit how to provide an ‘enabling context’ for developing these skills and attitudes. Study of the curriculum further indicates that opportunities for the first two steps: namely, for ‘originating’ and ‘conversing’ are provided by clinical as well as non-clinical activities such as teaching juniors, medical audit, presenting papers in seminars, conducting research and publishing papers. However, the third step, of ‘documenting’ the knowledge created in such a process and the fourth step, of ‘sharing’ it, are not sufficiently strong. Thus, in theory, the introduction of PBA seems to be a timely and well-informed academic decision to support the habit of writing down reflections on experiences and sharing those reflections.

However, the effectiveness of PBA in achieving its aims is still to be established conclusively. Lyons (1998) and Borko *et al.*, (1997) point out that numerous studies have indicated the strengths of the portfolio as an assessment and developmental tool but that

very few systematic studies of the nature and consequences of portfolio use have been conducted, especially with regard to the portfolio construction process. Graves and Sustain (1992) express their concern about the speed with which portfolio use has proliferated and caution that misunderstanding and misuse may result in the abandonment of the portfolio. They suggest that in order to avoid this, there is a need to refine related knowledge through continued research and practice. Similar concerns are expressed by Harris and Curran (1998) with regard to the lack of empirical data to prove claims in favour of portfolio use, indicating a need for more research in this area in order to acquire a better understanding of the effectiveness and effects of portfolio use:

‘Yet, although a great deal has been written about portfolio assessment, much of the literature has been theoretical or exhortative in nature. Unfortunately, there is relatively little actual empirical data about the effects and effectiveness of portfolio use.’ (Harris and Curran, 1998:83)

Smith and Tillema (1998) point out that there are very few studies on the effectiveness of the portfolio in providing feedback to the learner:

“.....impact of portfolio use is hardly dealt with in the literature on portfolios; most studies pertain to the design procedures for their construction and compilation. Evaluative studies of portfolio use as a tool for providing relevant feedback for development, however, are still lacking.” (Smith and Tillema, 1998:195)

Harris and Curran (*ibid.*) hope that future studies will attempt to answer these unanswered questions:

“The real question is whether or not portfolio assessment leads to better education. We hope that future studies, using a broader range of participants, will gather empirical data that will provide clear answers to this question” (Harris and Curran, 1998:92)

Wade and Yarbrough (1996) point out that although most student teachers saw great value in the intellectual struggle associated with the process of preparing portfolios, a considerable proportion of them had also experienced frustration and confusion and could not see much value in it. The views of such students cannot be ignored and there is a need to research the reasons for such views.

Zeichner and Wray (2001:621) concluded on the basis of the survey of studies conducted regarding the use of portfolios in teacher education, that:

“It is important that future studies of the use of teaching portfolios in teacher education help us move beyond the obvious conclusions that portfolios promote greater reflection by student teachers and provide teacher educators with more ‘authentic’ assessments of the teaching of their students. The important questions are what is the nature and quality of the reflection that is promoted under different conditions of portfolio use and what is the specific quality of the assessments that one can make of teaching with the aid of teaching portfolios under particular conditions.”

There is thus a need for more research in this area and this study responds to this need.

Moreover, the conclusion drawn by the above meta-study clearly suggests two questions for future research: first, what is the nature and quality of the reflection fostered by the preparation of portfolios under particular conditions of use? Second, which purpose of assessment is served by portfolios prepared in a particular context?

This thesis was therefore initiated at the QSA to understand the effectiveness of PBA in achieving its aims and the problems and implications of its implementation; and, based on the above concerns, an attempt has therefore been made to find answers to the following research questions:

R.Q. : Which type of reflection can PBA (Portfolio Based Assessment) promote amongst SpRs and to what extent?

R.Q. : To what extent does PBA enhance self-assessment, ipsative assessment, formal formative assessment and summative assessment?

On the basis of their meta-study, Zeichner and Wray (2001) further argue that future studies should be more sensitive to the influence of the context (in which the portfolio is used) on the development of the students and on the quality of the assessment. In this study, an attempt has been made to be sensitive to the influence of the context in which the portfolio is used. This sensitivity is achieved by describing the context in detail, including

the existing assessment system at the QSA, the perception of the trainees regarding the existing assessment system and the attitudes of the trainees towards learning and the different components of their training curriculum. To obtain an understanding of this context, two separate questionnaires were used: one questionnaire (Appendix no. vii) focused on the students' perceptions of the existing assessment system, while the second questionnaire (Appendix no. viii) was designed to understand the attitudes of trainees towards different components of the training. This context is described in sections 5.1 and 5.2 (Ch. 5).

As PBA was introduced mainly to promote self-assessment, its primary users were SpRs and hence its effectiveness must be greatly affected by the way the SpRs saw it. The following research question was, therefore, the main focus of the research study:

R.Q. : What are the attitudes of SpRs towards PBA?

However, during the analysis of responses to this research question, it was felt that the extent to which SpRs were self-directed learners and the ideas of professionalism held by them were also affecting their attitudes towards the non-clinical component of training and PBA. It was therefore decided also to explore the following research question:

R.Q. : To what extent are SpRs self-directed learners?

Paulson, *et al.* (1991) and Pike & Salend (1995) argue that if portfolios do indeed have great educational benefits, then it is necessary to identify and remove the obstacles which hinder professionals from harnessing the full potential of the portfolio. It is therefore also an aim of this study to understand the problems and issues associated with the implementation of PBA in the context of the QSA, and so the following research question is included in this research:

R.Q. : How does PBA fit into the existing system of learning and assessment at the QSA?

During the exploration of the problems and issues associated with the implementation of PBA, some suggestions were also received as how to solve those problems. These suggestions, along with the overall understanding and insight which were developed during the analysis of responses to the other research questions, may be used to enhance the effectiveness and efficiency of PBA: this understanding is synthesised by addressing the following research question:

R.Q. How can the existing system of PBA be further improved?

The analysis of the data collected in response to the above research questions is covered in Chapter 5, and the understanding so developed is finally discussed with reference to the existing literature in Chapter 6: Discussions and Conclusions. In this chapter, the findings and understanding obtained are related to each research question separately. It is hoped that the findings of this research may prove useful for improving the effectiveness of PBA in general and at the QSA in particular.

I was selected to conduct this research on the basis of my experience in the area of learning and assessment. The research methodology adopted, and the position from which I started this research and my preconceived views about assessment based on my past experiences are discussed in Chapter 4: 'Deciding methodology: being open minded and flexible' and in Appendix no. (v).

As a non-medical professional, it was necessary for me to understand the context of the SpRs' learning process, so before starting this research I studied the job functions of the anaesthetics, their education system from undergraduate level to becoming consultants and mechanisms for their formative and summative assessment. This understanding is described in brief in Appendices nos. (ii) and (iii), so that readers of this research can also make themselves aware of the general context of the SpRs' training in which PBA was introduced.

Chapter 2

Needs of Professional Education and the Portfolio

2.1 Introduction

As discussed in the previous chapter, the overall development of professionalism means that in all of its spheres the following qualities are required in would-be professionals:

- (i) Ability to continuously develop technical expertise and professional know-how at an individual level.
- (ii) Ability to support the profession as a whole by engaging in activities which support its growth (as well as their own individual professional growth).
- (iii) Ability to see the role of the profession in a wider context by challenging the existing practices and values of the profession according to the changing needs of society, and then striving to bring about the required changes.

It is a matter of concern for education providers to develop the above qualities in student professionals and that too in as efficient a way as possible: that is in the shortest amount of time, using the fewest possible resources and at the least cost to society. The literature suggests various methods and techniques for developing the above abilities; these techniques are discussed below with reference to each ability.

2.2 Ability to Continuously Develop Technical Expertise: Theories Applicable to Medical Education

According to the Collins English Dictionary (Millennium Edition), the origin of the word expertise is from Latin word '*expertus*' which means 'known by experience'. This clearly shows the relationships between expertise and experience. Most of the theories discussed below are in agreement about the importance of experience in learning, although they differ on the exact method for acquiring professional expertise. While conventional pedagogical

theories cater mainly for institution-based learning, these theories explain the process of development of professional expertise from work-based learning. These theories and models are discussed in brief, showing their relevance to the medical education system in making professionals self-directed learners for the purpose of continuous professional development.

2.2.1 The Dreyfus and Dreyfus' Model of Skill Acquisition

This model has its roots in the efforts of computer scientists and mathematicians to design and simulate expert performance mathematically (Maudsley and Strivens, 2000). The most important feature of this model is the articulation of five stages of skill acquisition: novice, advanced beginner, competent, proficient and expert.

The pathway to competence (i.e., up to stage 3) is characterised mainly by the ability to recognise features of practical situations and to discriminate between them, to carry out routine procedures with speed and to plan ahead. 'Competence' is the climax of rule-guided learning and consisted of acquiring an ability to cope in crowded, pressurised contexts. 'Proficiency' on the other hand, marks the onset of a quite different approach to the job: normal behaviour is not just routinised but semi-automatic; situations are apprehended more deeply and the abnormal is quickly spotted and given attention. According to this model, it all happens as a result of previous experience of the performer, as is clear from the following words:

".....no detached choice or deliberations occur, it just happens, because the proficient performer has experienced similar situations in the past and the memories of them trigger plans similar to those that worked in the past and anticipations of events similar to those that occurred." -----(Dreyfus & Dreyfus, 1986:28)

Progression from proficiency to expertise finally happens when 'decision making ', as well as 'situational understanding', becomes intuitive rather than analytical and thus requires significantly more experience.

However, this model is criticised by Eraut (1994:126-127) and Hamm (1988:78-108) because, at expert level, it accords importance only to 'intuition', and the role of 'deliberation' is limited to verifying the validity of the intuition, and this deliberation is considered different from 'analysis' or 'reflection'. Moreover, it neglects the self-evaluation dimension of professional work and does not address to the issue of how the large volume of information collected by experience is handled, i.e., selected, organised and retrieved.

Relevance of the Dreyfus and Dreyfus' Model for Medical Education

Eraut (1994) argues that this model over-emphasises learning from experience, with only occasional reference to theoretical learning or the development of fluency on standard tasks. The main contribution of this model to education is that it provides a taxonomy of skill acquisition. It also provides a criterion for establishing the targets for skill acquisition that can, in turn, be used to assess whether students have reached the desired level or not.

This model highlights the fact that an enormous depth of experience is required to reach expert level. Although this model does not say so explicitly, it may be argued that it is practically impossible for any formal education system to provide that amount and variety of experience. However, according to the attributes of different levels of expertise as proposed by this model, formal educational systems can strive to bring students to the competence level. It is perhaps beyond the reach of a formal education system to turn students into experts. This may be the reason that nobody has yet proposed an expertise-based model for formal education; instead, only a competence-based model of education has been proposed.

Thus it is an appropriate target for formal educational systems to prepare students for a competence level of expertise. However, the problem lies in the assumption that once students have acquired a minimum competence level in educational institution, they can be launched into the world of work, and that they will continue to learn until they reach expert level. Kindermann and Skinner (1992) have called this the 'launch perspective', that has its roots in the belief that earlier learning determines the trajectory of later learning. Yet this perspective ignores the effect of change in the context of learning from an educational setting to a work setting. (Lasonen and Young, 1998, as quoted by Guile and Griffiths, 2001). This demonstrates the need for the formal educational system to provide students with the skills necessary to learn also from a work context.

2.2.2 Hammond's Cognitive Continuum Theory

In contrast to the Dreyfus and Dreyfus model, this theory accepts the importance of analytical as well as intuitive thinking for taking decisions and defines these two modes of thinking as poles of a cognitive continuum. Hamm (1988) explains that analytical and intuitive thinking are defined as poles of a continuum because most thinking is neither purely intuitive nor purely analytical, but rather lies somewhere in between. And according to Hammond's theory of the cognitive continuum, the kind of task a professional is handling has an important role in determining the kind of thinking that is likely to be used, that is, the share of analytical and intuitive thinking in decision making (Hammond *et al.*, 1980). This theory further suggests that the match between the characteristic of the task and the kind of thinking influences the accuracy of the thinking, and that the extent of professional's experience also influences the kind of thinking used and its likely success.

Relevance of the Cognitive Continuum Model for Medical Education

According to this model, education providers should advise prospective professionals to learn to:

- (i) Identify the kind of thinking they are using in a particular situation.
- (ii) Identify the kind of thinking required to take accurate decisions with reference to the kind of task, and situational and institutional contexts.
- (iii) To match their thinking with the thinking required in a particular situation.

In other words, would-be professionals should learn meta-cognition and teaching-learning experiences should cater for this. However, this model does not indicate how this need may be addressed.

2.2.3 Theories of Clinical Decision Making

The ways in which doctors make decisions in clinical situations has also attracted the attention of researchers. This is because the final decision about how to manage a disease is a complex one, requiring a synthesis of all the information about the patient, signs and symptoms, the effectiveness of dozens of tests and treatments, outcomes and values. The difficulty of the situation is further compounded by the fact that most of the information available has a high element of uncertainty. It has therefore been a subject of research to determine how expert doctors achieve efficiency and effectiveness in their decision making. A number of theories have been developed, but the following are the most academically debated and recognised.

- (i) Template model proposed by cognitive scientists during the mid-1970s
- (ii) Minsky's frame-system theory proposed by Minsky (1977)
- (iii) Four-stage model proposed by Schmidt, Norman and Boshuizen (1990)
- (iv) Decision-analysis Model proposed by Boreham (1998)

All these models discuss the way in which information about diseases is gathered from experiences and is stored in the memories of doctors in the form of schemata or stereotypes against which data patterns for new patients can be compared until a suitable match is

found. Thus these models explain how expertise is built up from many years of relevant experience, and how professionals should learn to make generalisations and connections from different experiences. These models are gradual refinements of theories of clinical decision-making in the above sequence. It is not relevant to this research to discuss the differences between these models. However, it is important to note here what these theories suggest in general for improving professional decision making:

Relevance of Theories of Clinical Decision Making for Medical Education

These theories suggest that professionals should be prepared to:

- (i) learn to take decisions based on both intuition and analysis;
- (ii) develop habits of gathering information about the effectiveness of various remedies and procedures, either from research journals or by interaction among community members;
- (iii) appreciate the context, which includes such contexts as the reliability of various pathological and radiological tests, quality of available medicines and the social and family conditions of the patient; and then, based on this information, adjust various probabilities according to any change in context;
- (iv) communicate well with patients and colleagues to collect information about various contexts.

2.3 The Role of Reflection in Learning from Experience

All the models discussed above highlight the role of experience in acquiring expertise, and suggest that experience should be used analytically and intuitively in making future decisions. It is however, Schon's seminal work, *The Reflective Practitioner*, which has generated widespread debate and interest in education about the role of reflection in learning and in acquiring professional expertise (See, for example, Boud *et al.* 1985,1993;

Mezirow, 1977,1981,1991; Calderhead and Gates, 1993; Eraut, 1994, 2001; Ecclestone, 1996; Bright, 1996; Loughran, 1996; Seibert and Daudelin, 1999). Why is this so? The importance of reflection in learning or acquiring expertise is not new and can be traced back to Aristotle's discussions of practical judgement and moral action in his 'Ethics' (Grundy 1982). In modern times, the most influential figure has been that of Dewey (1916, 1933) and his use of 'reflectivity' in learning and his theories of intelligent learning. One reason Schon (1983) was able to create renewed interest in learning from experience is perhaps that he linked the theories of experiential learning with professionalism and highlighted the limitations of 'technical rationality' by emphasising the complementary role of 'professional artistry' in situations of uncertainty, instability, uniqueness and conflict. The 'professional artistry' view gained acceptance because of a realisation that the unprecedented growth in theoretical knowledge had not lead to the elimination of uncertainty in medical work (Greaves, 1996; Klemola and Norros, 2001). In this scenario Schon (*ibid.*) suggests how reflection may be used to improve 'professional artistry'. In his next work (1987) Schon suggests the concept of 'reflective practicum' for educating the reflecting practitioner. This has created widespread interest in professional education, since professionalism in most professions was already being questioned (Sox, 2002). But this widespread interest also has widespread consequences for professional education, since the application of this notion without fully understanding the form and focus of reflection may undermine the purpose for which it is applied. According to Eraut (1994:148):

"One important consequence of Schon's work has been the proliferation of a wide variety of professional education programmes claiming to be based on his theory. This partly results from putting any theory into use, but this natural variation has been exacerbated by the ambiguities and inconsistencies in Schon's theory."

Rogers (2001:37) expresses similar views: according to him,

"this scrutiny of the concepts of reflection leaves one with the impression that the concept is well understood in educational circles. Closer examination, however reveals that this is hardly the case."

These concerns mean that a better understanding of the notion of 'reflection' is needed before using it in professional education. Moreover, reflection is such a general concept that it encompasses so many other concepts such as critical thinking, meta-cognition, mulling over, and pondering within it. Therefore, issues such as the meaning of reflection (Rogers, 2001; Boud *et al.*, 1985), traditions or purposes of reflection (Carr, 1985; Mezirow, 1977, 1981; Ecclestone 1996), the context of reflection (Lave and Wenger, 1991; Lave, 1993; Eraut, 1994; Leitch and Day, 2001) process of reflection (Dewey, 1933; Kolb, 1984) suitable circumstances to promote reflection (Schapiro and Livingston, 2000; Eraut *et al.*, 2000) techniques for fostering an attitude of reflection during education (Bandura, 1997; Yair, 2000) are under discussion. In the following paragraphs these issues are dealt with one by one.

2.3.1 Meaning of Reflection

Dewey (1916b:2) suggested that thinking is a key skill in learning from experience, and for him thinking meant reflective thought. He defined learning from experience as follows:

“ To ‘learn from experience’ is to make a backward and forward connection between what we do to things and what we enjoy or suffer from things in consequence.”

Thus for him learning from experience is akin to ‘thinking’, which he describes as an intentional effort to make connections between actions and their consequences. He goes on to argue:

“Thinking, in other words, is the intentional endeavour to discover specific connections between something which we do and the consequences which result, so that the two become continuous.Thinking is thus equivalent to an explicit rendering of the intelligent element in our experience.” Dewey (1916b: 9)

Thus he points out that thinking is a necessary condition for intelligent learning, since thinking involves the mind in a learning process, and so he recommends that instruction and the learning process should be designed to excite, promote and test thinking (Dewey,

1916a: 15). He has also used the term ‘reflective thought’ interchangeably with ‘thinking’ and, according to him, this means:

“Active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and further conclusions to which it leads.....it includes a conscious and voluntary effort to establish belief upon a firm basis of evidence and rationality.” (Dewey, 1933: 9, cited by Boud *et al.*, 1985)

Thus ‘thinking’ and ‘reflection’ are one and the same thing. Boud *et al.* (1985) define ‘reflection’ as:

“.....a form of response of the learner to the experience.....Reflection is an important human activity in which people recapture their experience, think about it, mull it over and evaluate it..... in the context of learning [it] is a generic term for those intellectual and affective activities in which individuals engage to explore their experiences.” (Boud *et al.*, 1985:18-19)

They further suggest that this exploration of experience ultimately leads to a new understanding or creation of knowledge.

For Loughran (1996) reflection is a deliberate and purposeful act, which examines the way one responds to a given situation. Mezirow (1991), who based his understanding on Habermas (1987), sees reflection as the process of critically assessing the underlying beliefs and premises which affect one’s responses. He believed that this process of criticism results in transformative learning.

Rogers (2001) has tried to provide a normative definition of reflection in terms of the following features:

- (i) It is a cognitive and affective process or activity.
- (ii) It requires active mental engagement on the part of the individual.
- (iii) It is triggered by an unusual or perplexing situation or experience.
- (iv) It involves examining one’s responses, beliefs and premises with reference to the situation in hand.
- (v) It results in the integration of the new understanding into one’s previous understanding.

2.3.2 Traditions and Purposes of Reflection

Reflection can be from different educational traditions, depending upon the focus of the reflection or the tradition of reflective practice. According to Ecclestone (1996), reflection can have three different types of focus based on different types of autonomy. She draws on the work of Habermas (1987) and Carr (1985,1995) to define three traditions of reflection, namely, technical enquiry, practical enquiry and critical enquiry. (See Appendix no. xvi, for a summary of the typology of autonomy proposed by Ecclestone, (2000b:149). These three types of reflection are discussed below:

(i) Technical Enquiry: Mezirow (1981) relates this type of enquiry to learning that results in task related competence. Therefore the purpose or focus of reflection is to discover better techniques. At this stage, the professional reflects in order to learn to apply propositional knowledge efficiently and effectively. According to Kemmis (1985), this technical interest is directed towards control over nature. It generates instrumental knowledge (knowledge which codifies our means of control), often in the form of causal explanations. This knowledge may be accumulated and pursued through empirical - analytical sciences (on the model of physical sciences). This type of enquiry is the focus of the learner during progression from novice to competent stage (Dreyfus and Dreyfus, 1986). Beach and Vyas, (1998, cited by Guile and Griffiths, 2001), have termed learning from this type of enquiry ‘vertical development’ and in their view, this type of development consists of individual progress through a hierarchy of knowledge and skills, but away from the context of practice. According to Gick (1995), this type of vertical development is based on the abstraction and decontextualisation of knowledge and skills, and this type of learning normally occurs during formal study in an educational context such as a school or the university. According to Wenger (1998), the formal education system has this limitation because it needs the reification of knowledge in order to represent it and give it a meaning so that it can be taught efficiently and conveniently, but

this results in decontextualisation. However, this type of enquiry is the first stepping stone to professional growth and so should be encouraged, though enquiry should not be limited to this type alone (Zeichner, 1987). It is also important because this type of reflection helps in converting (to the extent possible) propositional implicit knowledge to propositional explicit knowledge, which may be shared by others also.

(ii) Practical Enquiry: In this case, the focus of reflection is on improving the way in which professionals make decisions about their practice and on helping them to articulate their concerns, implement new practices and think about the consequences of what they do. It provides a means for professionals to examine their routine practice and to contribute to their repertoire of practical wisdom. According to this tradition, knowledge is something which individuals and groups 'construct' and recreate according to the context and circumstances they are in (Ecclestone, 1996). Zeichner (1987) suggests that, at the second level of reflection, teachers reflect on how the context in which they are teaching (institutional, social and cultural) influences teaching and learning. Mezirow (1981) describes this type of enquiry as learning for the purpose of interpersonal understanding. According to Kemmis (*op. cit.*), practical interest is directed towards mutual understanding and wise action within a coherent framework of values. He further suggests that knowledge generated by practical enquiry is in the form of interpretations of social life and that it is pursued through the hermeneutic or interpretative sciences (on the model of history). In this case, the focus of reflection is on the context of the practice, since this context directs attention towards interpersonal understanding. However, Kemmis (*op. cit.*) points out that, in this case, the scope of reflection is limited to improving practice with reference to a coherent framework of values, and that the values themselves are not challenged. This type of reflection relates to the process knowledge described by Eraut (1994). The five kinds of process which contribute to process knowledge as identified by him are:

- (i) acquiring information
- (ii) skilled behaviour
- (iii) deliberative processes, e.g., planning and decision making
- (iv) giving information
- (v) meta-processes for directing and controlling one's own behaviour.

According to Eraut (*ibid.*) this list is not exhaustive and may be extended. But he points out that all of these processes are embedded in the socio-cultural context of practice, and hence reflection on these processes will involve reflection on this context. Learning from this type of reflection may result in the 'horizontal development' of individual (Beach and Vyas, 1998, cited by Guile and Griffiths, 2001). This type of reflection is triggered when an individual moves from one context to another or when the context changes. The 'situated learning' theory provides models of how professionals acquire the ability to apply technical knowledge in various different contexts (Lave and Wenger, 1991; Chaiklin and Lave, 1996). These theories claim that 'learning to do' or 'knowing how' takes place through solving problems in real-life situations.

According to Ellstrom (1997), the real challenge for education providers is to assist students in relating their 'horizontal' development to their 'vertical development'. He further argues that this involves overcoming the limitations of the 'technical-rational' model of education and training by developing a curricular framework which encourages students to make links between work experiences, underlying knowledge and skills and context (cultural, social and technological). These theories also suggest that newcomers or novices in the real-life situation are not only supposed to learn from practice but are also supposed to develop practice. However, this concept of the development of practice is normally ignored. Lave and Wenger (1991, as quoted by Maudsley and Strivens, 2000:538) referred to this problem as a dilemma for newcomers, as follows:

“On the one hand, they need to engage in the existing practice, which has developed over time; to understand it, to participate in it and to become full members of the community in which it exists. On the other hand, they have a stake in its development as they begin to establish their own identity in its future.”

Maudsley and Strivens (*op. cit.*) further argue that medical education provides situated learning opportunities to novices at postgraduate level, but with very little time and encouragement for reflection on practice, and hence there is a need to integrate theories of reflective learning with theories of situated learning.

However, to engage in reflection on the whole practice is a problematic task, which may involve linking individual experience with practice. According to Fish and Coles (1998:58)

" Trying to understand practice better is difficult, uncomfortable, takes time and is better worked on in small pieces of practice rather than attempting a large scale exploration. Yet in starting with a small but well chosen piece of his or her own practice a professional can quickly unravel some of the issues at its core and come to see them as relating to the heart of the profession's practice. The starting point for such enquiry, then, is intimate and highly detailed but it relates to wider issues and it is ultimately for a public audience."

They further argue that the written expression of reflection on a particular episode of experience can be treated as a case study. As discussed in the previous chapter, Fish and Coles (*ibid.*: 67) draw on Golby (1993, 1994) and explain that a case study which concerns a particular episode of professional practice embedded in the context of the situation should not be considered unique or isolated, since different situations are manifestations of general principles in a particular way. And in order to understand a case it is necessary to see it in relation to a wider context. It is only because it is possible to see an episode as an example of a general case that it is possible to say something about it.

However, this requires awareness of the context (historical, professional, political, cultural, social, etc.), and hence the ability to place the case in wider traditions. When we try to relate a case to wider issues and understandings, it leads us to analyse the formal or general theory, which in turns leads to the integration of the new knowledge with the existing knowledge, or to a modification of knowledge. Golby (1993: 11) argues:

"It is not, having a body of knowledge that is the hallmark of professional activity, but the accessing of that knowledge in relation to particular cases."

This process of relating the reflections of individual professionals to the general theory and of examining each (i.e., particular experience and general theory) with reference to the other, and of presenting these reflections may lead to the development of the general theory and make it more adaptable to real life. This notion of 'continual iteration' between 'particular cases generated by professional community' and 'general knowledge created by academics' is termed 'insider practitioner's research ' based on 'practical enquiry' by Fish and Coles (1998). Gupta *et al.* (2001) integrate the concepts of 'insider practitioner research' and 'portfolio-supported learning and assessment' and propose a model for developing a 'body of practical knowledge'. According to this model, engaging in practical enquiry, writing up the understanding so developed in the form of portfolios or journals and then sharing it within the community of practice, enables professionals not only to develop themselves but also to develop the 'body of practical knowledge' leading in turn to the development of the profession.

(iii) Critical Enquiry: In this tradition, 'reflective practice' encourages professionals to examine the contradictions between their own values and beliefs and the dominant social and institutional norms which govern their practice. This requires systematic enquiry into how different stakeholders and social groups benefit from current practice, what personal and political action might secure change and how social structures inhibit or foster change. According to Kemmis (*op. cit.*), it is aimed at emancipating people from the dictates of taken-for-granted assumptions, habits, traditions, conventions, domination and coercion, and self-deceptions. He draws on Habermas and suggests that the aim of this type of enquiry is to synthesise the classical concern for praxis (wise and prudent action) with the logical and theoretical rigour of modern science. He recognises that the content and form of our thinking are socially constructed, but that we are able to use our critical abilities to

reconstruct what our past has constructed for us, and to construct new modes of thought and professional action. The emancipatory interest is positively shaped by classical aspirations towards rationality, justice and fulfilment, but it must proceed negatively, as it were, by the rigorous criticism of thought and action (critique), searching always for new possibilities in which more rational, just and fulfilling forms of social life can be realised. This critical thought yields knowledge directed towards human emancipation. Habermas (1974, as cited by Kemmis, *op. cit.*), suggests that science through which critical enquiry is pursued is critical social science (I call it philosophy). Mezirow (1981) when clarifying Habermas's theories, suggested that critical enquiry leads to perspective transformation. Mezirow (1991, as cited by Connelly, 1996) explained that this perspective transformation could be either at individual level or at collective level (as seen in the civil rights and women's movements). When critical enquiry takes place at an individual level it leads to self-actualisation, and when it takes place at a collective level it leads to the transformation of society and practice. The importance of critical enquiry with reference to professional responsibility for monitoring the values upheld by the profession compared with the changing values of society is discussed below.

2.3.3 Technical Enquiry to Critical Enquiry:

Intelligent learning is generally seen only as technical enquiry and its role is considered to be limited to the creation of knowledge. However, Skemp (1979) argues that true technical enquiry or intelligent learning has the potential to transform the individual involved in it, and hence it may lead individuals beyond the creation of knowledge. He relates the importance of intelligent learning or technical enquiry to self-actualisation and argues further that intelligent learning is creative both in actuality and within our inner realities. He gives the following examples:

“Edison after his successful conception and actualisation of the phonograph, Michelangelo after he has finished carving his David, these were no longer quite the same person as they had been before. In creating these new objects in actuality, each of these also brought

into existence a self which a short time before had not been able to do so.” (Skemp, 1979: 290)

In giving these examples, Skemp is trying to make the point that, while in the outside world creation breeds creation, within the inner realities of the person, learning breeds learning. According to him, intelligent learning raises new questions to be answered, and thus it may prove to be an agent of its own expansion. This is not the case with sub-intelligent forms of learning, such as habit formation in the behaviourist tradition. The outcome of intelligent learning thus increases a person's capability and motivation for further intelligent learning in that realm of thought which ultimately results in self-actualisation. Skemp cites Maslow to support his argument regarding the relevance of intelligent learning to self-actualisation:

“ So-called learning theory in this country has based itself almost entirely on deficit-motivation with goal objects usually external to the organism. i.e. learning the best way to satisfy a need. For this reason, among others, our psychology of learning is a limited body of knowledge, useful only in small areas of life and of real interest only to other 'learning theorists'. This is of little help in solving the problem of growth and self-actualisation. Here the techniques or repeatedly acquiring from the outside world satisfaction of motivational deficiencies are much less needed. Associative learning and canalisation give way more to perceptual learning, to the increase of insight and understanding, to knowledge of self and the steady growth of the personality, i.e. increased synergy, integration and inner consistency. ” (Maslow, 1968: 38-9, as quoted by Skemp, *op. cit.*)

A similar view has been echoed by Michael Rossman (1973:28):

“ The learner learns as much by the process of his own creation as by recreating others' past learning.....His (sic) learning in a subject takes him deep in its penetration of his self, and outward in its embodiment in society. He grows along his subject as a vine does along a trellis, over many years and windings. ”

Thus theories of intelligent learning or reflective learning extend the debate from the learning of technical aspects to a reflection on values. The relevance of these theories is not limited to knowledge creation or the growth of the individual but also relates to the growth of the profession and society. From the above discussion, it becomes clear that it is very difficult to separate the growth of individual, profession or society one from the other, since as suggested by the above quotation from Rossman (*op. cit.*), the individual and his/her subject/profession grow together. From our point of view we can classify the

enquiry into three parts as above, but it is also clear that each type of enquiry is a cause and consequence of the other two types of enquiry. And it is the virtuous helix of these enquiries which leads to the simultaneous growth of knowledge, individual, profession and society.

2.3.4 Process of Reflection

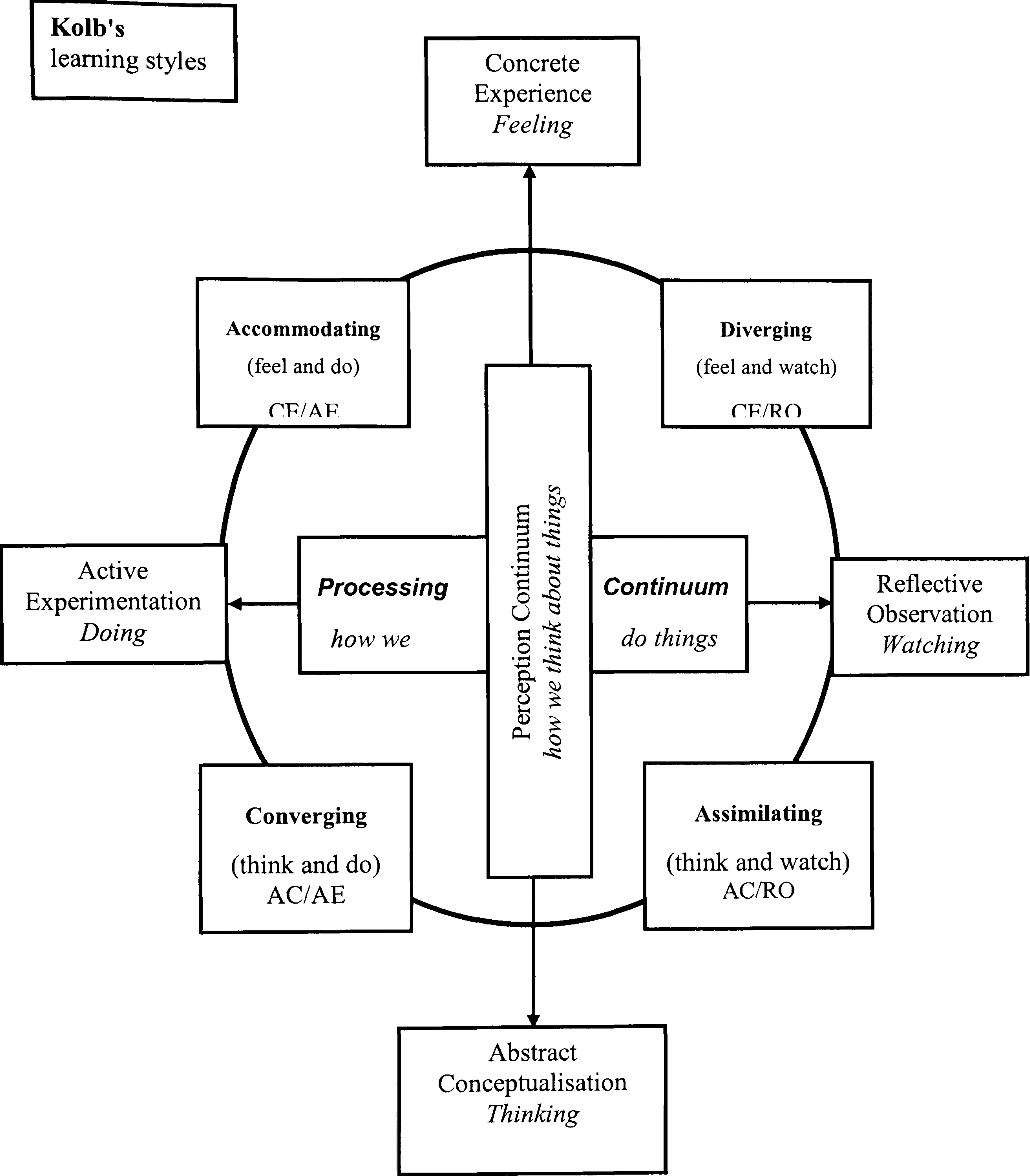
There is a wide variation in the way the process of reflection is described by different authors, although the basic nature of the process is the same. Schon (1983, 1987) does not describe the process of reflection, but he compares it with action research, as is clear from the following:

“When someone reflects-in-action, he becomes a researcher in the practice context. He is not dependent on the categories of established theory and technique, but constructs a new theory of a unique case,.....He does not keep means and ends separate, but defines them interactively as he frames a problematic situation. Because his experimenting is a kind of action, implementation is built into his inquiry.” (Schon, 1983:68)

He suggests that to develop the skills of reflection-in-action in would-be professionals, they should be subjected to the experience of normal scientific research, and he draws a parallel between scientific research and reflection-in-action:

“For it is true, paradoxically enough that although normal science research cannot be conducted in practice, and its criteria are both more and less stringent than those of the research in practice, experience in the methods of normal science research can be a superb preparation for reflection-in-action”(Schon 1987: 322).

Kolb, Rubin and McIntyre (1971) have added to our thinking about the process of reflection through their well-known model of ‘experiential learning’. The core of the model is a simple description of the learning cycle: how experience is translated into concepts, which in turn are used as guides in the choice of new experiences. Learning is conceived of as a four-stage cycle. Immediate concrete experience is the basis for observation and reflection; these observations are assimilated into a theory from which new implications for action can be deduced and these implications or hypotheses are used to indicate new experiences (see Figure 2.1).



© concept david kolb, adaptation and design alan chapman 2005, based on Kolb's learning styles, 1984

Courtesy: www.businessballs.com.

Figure 2.1

Kolb argues that effective learners need four different kinds of abilities which correspond to the four stages of his learning cycle: concrete experience abilities, reflective observation abilities, abstract conceptualisation abilities and active experimentation abilities. These abilities represent the contrasting elements of the two major dimensions of cognitive growth and learning: the concrete/abstract dimension and the active/reflective dimension. According to Kolb, professionals have strengths in a particular parts of these dimensions and will need to develop the skills to operate along the full range to be expert. He has developed a learning style inventory to enable learners to discover their own characteristics in these dimensions (Kolb and Fry, 1975).

Unfortunately, Kolb did not discuss the nature of his stages of observation and reflection in much detail. Although his scheme has been useful in pointing out the importance of reflection on experience for learning, it does not help to uncover the elements of reflection itself.

However, Boud *et al.* (1985) have tried to identify the elements of reflection and in order to understand the process of reflection they have separated it into three elements:

- (i) Returning to the experience: this is the process of recollection of the salient events of the experience especially related to the problem being analysed.
- (ii) Attending to feelings: this has two aspects: utilising positive feelings and removing negative feelings. Removing negative feelings means eliminating psychological barriers, which are expected, since reflection is on personal experience rather than on somebody else's experience. Similarly, utilising positive feelings means making the most of the pleasant aspect of the experience. Inclusion of this element shows that reflection is not considered to be a pure cognitive process but that it is also affective.

- (iii) Re-evaluating experience: this means re-examining the experience in the light of the learner's intent, associating new knowledge with that which is already possessed, and integrating this new knowledge into the learner's conceptual framework.

But these steps are not simply a one-off effort; and complete reflection on experience may require many iterative cycles of these three elements.

Dewey (1916a) suggests that a reflective experience consists of five steps, as follows:

- (i) Perplexity, confusion, doubt, due to the fact that one is implicated in an incomplete situation whose full character is not yet determined.
- (ii) A conjectural anticipation ---a tentative interpretation of the given elements, attributing to them a tendency to effect certain consequences.
- (iii) A careful survey of all attainable considerations which will define and clarify the problem in hand.
- (iv) A consequent elaboration of a tentative hypothesis to make it more consistent, by squaring it with a wider range of facts.
- (v) Taking one step along the projected hypothesis as a plan of action which is applied to the existing state of affairs: doing something overtly to bring about the anticipated result, and thereby testing the hypothesis.

It can be seen that in all of the above, the process of reflection is considered similar to action research, but two differences may be identified: one is in rigour and the second is that reflection takes place only in the minds of the practitioners, while action research takes place relatively more in the public domain.

2.3.5 Conditions which Foster Reflection

There is a general consensus (Seibert and Daudelin, 1999; Loughran, 1996; Mezirow, 1991) that one condition necessary to trigger reflection is that an event or situation beyond the individual's common experiences should occur. According to Loughran (1996), the

learner may perceive this type of experience as a problematic or puzzling situation that needs more attention. But Guest *et al.* (2001) suggest that dynamic tasks promote more reflection compared to static tasks. According to them, a static task involves the performance of a specific set of actions like the basic technical skills of surgery, such as suturing or knot-tying, while dynamic tasks are more complicated. Two features of dynamic tasks that there are differences across situations, due to variations in the exact nature of the task, and hence variations in the performance required from one time to the next. Dynamic tasks require the individual to decide on appropriate strategies and adapt to various contingencies. According to Regehr (1994), dynamic tasks require dynamic experts who have expertise that goes beyond mastery of the mechanics of the task. In fact they require skills in dealing with problems. Hence dynamic tasks foster reflection. The nature of the work is important for reflection or learning, according to the self-learning theory of Bandura, 1977 (cited by Eraut *et al.*, 2000), learning more often results as a by-product of the pursuit of work goals than from the pursuit of the learning goals *per se*. Eraut agrees that Bandura's theory is underpinned by external motivation, since according to this theory behaviour is construed as a self-directed goal-setting activity, but his theory can be applied to reflective learning as well, since work itself may provide purpose and direction.

Another factor that is relevant is the availability of time in which to reflect. Hyatt and Beigy (1999) draw on Skertic and Ware (1992) and argue that, teachers find it difficult to find time for reflection on teaching in prevailing school cultures. They suggest that schools need to set aside more time for individuals and groups of teachers to plan and deliberate about teaching if reflective approaches are to be promoted.

However, the most important factor is the individual him/herself. According to Ericsson (1996), the development of expertise is critically dependent on the individuals making the most of the experience. He further emphasises that research and anecdotal evidence suggest

that most individuals do not engage in deliberative practice, or explore new methods with unknown reliability, but rather that once they have obtained a minimally acceptable level of performance, they favour well-entrenched activity and avoid challenging activities.

What may be the reasons for individuals avoiding challenging activities or new methods?

Guest *et al.* (2001) suggest that practitioners may lack the self-awareness necessary to recognise their deficiencies. They cite Kruger and Dunning (1999), who found in their research study that those who fail to monitor themselves are often the ones who fail to realise that they need monitoring! Such a lack of self-awareness can impact on a practitioner's performance. This indicates that self-awareness is the necessary condition for practitioners or learners to engage in reflection. However, self-awareness is not the only necessary condition. According to Bretier and Scardamilia (1993), practitioners should choose to address the problems of their field at the upper limit of the complexity they can handle. And they must make this choice early in their careers. They argue that would-be experts choose to make their careers progress by gradually increasing the level of complexity of the problems, while would-be non-experts advance their careers by choosing work which they can execute without much effort and without too many problems, if problems arise they are able to solve them through existing knowledge. This implies that motivational factors are also important for practitioners or learners to engage in reflection.

Schapiro and Livingston (2000) draw on the work of Iran-Nejad and Chissom (1992) and suggest that the quality of dynamic self-regulation is necessary in individuals for them to learn from their experiences. In their view, dynamic self-regulation involves an internal disposition that creates interest, curiosity, risk taking, enthusiasm, and persistence as means for stimulating learning. They further suggest that dynamically self-regulated learners feel free to elaborate and find new connections between the specific knowledge they are acquiring and its broader applications. They readily use what they learn in new contexts. It

seems therefore that motivational factors are fundamental to the development of both static and dynamic expertise.

Dewey (1933) contends that reflective thought requires open-mindedness, whole-heartedness and responsibility on the part of the learner. Mezirow (1991) also states that conscious awareness and deliberative choice are prerequisite for reflection. Similarly, Langer (1997) suggests that mindfulness can occur only when the individual makes a conscious choice to be mindful. Eraut *et al.* (1999:20) summarise the findings of their research into work-based learning as follows:

“Our analysis at the individual level suggests that learning depends on confidence, motivation and capability – especially when capability is viewed (by learners) as something to be acquired rather than something innate. This in turn depends on people’s work having the appropriate degree of challenge, on how they are managed and on the micro-culture of the immediate work environment. The key person is the local manager whose management of people and role in establishing a climate favourable to learning, in which people seek advice and help each other learn quite naturally, is critical for those who are managed. ”

The above discussion thus suggests that the quality and amount of reflection on work depends on three factors: first, an individual’s qualities of motivation, confidence and capability, second, the qualities of the work: i.e. it should contain an appropriate degree of challenge, and third, the support provided by the manager (or supervisor). Based on this research, Eraut *et al.*, (2000) developed a model of triangular relationships existing between the challenge posed by the work, the confidence of the learners and the support provided by managers. According to them, offering support to individuals, particularly at critical junctures, leads to their developing confidence in their capabilities. Increasing confidence enables them better to manage more challenging work, which, if successfully completed, increases confidence further. In this way a virtuous circle of positive development is established. They further suggested that a confident practitioner is better able to offer support to others in the workplace. They argued that interactions between challenges, support and confidence are reciprocal, each reinforcing and being conditional

on the others. This model adds a new dimension to reflection, which is the importance of the support of the manager/supervisor/teacher. It raises questions as to what type of support is needed and whether it is possible to teach reflection-in-practice.

2.3.6 Is it Possible to Teach Reflection?

The preceding discussion suggests some conditions for facilitating learning to reflect. These conditions are the same as those of the practicum put forward by Schon (1987), who suggested that a practicum can be arranged for teaching reflection in practice to learners. According to him, it is a context similar to the practice world in which students learn by doing, although they do not work one hundred percent independently as they would in real-life situations. He further proposes three main features of learning in the practicum: students have to

- (i) learn by doing;
- (ii) learn by interaction with supervisors and peers;
- (iii) learn from the diffused process of background learning, i.e., by exposure to and immersion in the environment, although this learning may be subconscious.

In the case of medical education, this type of practicum is already provided to learners, especially to SpRs. The key question is how they can learn to reflect on and during their experiences. Rogers (2001) suggested that the process by which reflection is thought to occur differs across approaches, and this makes it difficult to identify the specific steps and thus to teach the reflective process. He further argues that educators should be wary of tendencies to formularise or oversimplify the process of reflection.

Schon (1983) suggests that students cannot be taught what they need to know, but they can be coached to reflect properly, and in this regard quotes Dewey as follows:

“He has to see on his own behalf and in his own way the relations between means and methods employed and results achieved. Nobody else can see for him, and he can’t see just by being told, although the right kind of telling may guide his seeing and thus help him to see what he needs to see.” (Dewey, 1974:151 quoted by Schon, 1983)

Similarly, Simpson (2000), on the basis of the Gardner's (1981) concept of self-renewal suggests that learners need the following basic qualities for self-renewal:

- (i) the persistence to strive continuously to improve practice;
- (ii) the courage to take risks by trying new ideas;
- (iii) the will to interact with their environment and meet circumstances head-on;
- (iv) a knowledge of self, which means the continuous evaluation of strengths and weaknesses.

But the key question is that of how these basic attitudes can be taught to learners. Although this question has not yet been explored in the literature, at the very least it may be said that these attitudes can be modelled before learners (Guest *et al.*, 2001).

Seibert and Daudelin (1999) found that certain conditions of the context in which learners are working influence the quality and amount of reflection. According to them, these conditions are autonomy, feedback, access and connection to others, stimulation by others and significant performance demands. This means that learners should be provided with appropriately challenging situations according to their capabilities and that they should be asked to discuss with supervisors whenever they are unable to move forward. Supervisors for their part should guide students as to how to search for solutions, rather than providing them with ready-made solutions.

Rogers (*ibid.*) suggests that this requires a proper mentoring relationship between learner and supervisor. For him, a proper relationship means sufficient rapport between an individual student and his/her mentor to facilitate reflective dialogue without incurring defensiveness (this may be similar to Habermas's idea of rational unconstrained discourse).

According to Loughran (1996), the faculty may promote effective mentoring relationships by modelling reflective practices in their interactions with students. For this he suggests that supervisors should allow learners to hear them reflecting both in group work and in

individual meetings. But he warns that since reflection is a personal process, modelling reflection may be a challenging task since it is akin to self-disclosure and may make people feel vulnerable. The most important prerequisite is that supervisors themselves should be sufficiently reflective.

Schon (1987) also warns that what a student learns will depend on how his/her supervisors see the professional knowledge. If supervisors see professional knowledge in terms of facts, rules, and procedures applied non-problematically to instrumental problems, learners will appreciate the practicum in its entirety as a form of technical training. However, if supervisors consider being professional as thinking like a manager, lawyer or teacher, then learners will also learn how professionals think and find their way out of problematic and uncertain situations. They will also learn how professionals use general knowledge to solve unique problems something which is not described in books and other works of reference.

Rogers (*ibid.*) warns that most of the methods designed to foster reflection put forward in the literature on higher education are focused on reflection-on-action. Santora (1996) suggests the use of portfolios or learning journals for fostering reflection, but reflection in the case of journal writing is limited to reflection-on-action. Rogers (*ibid.*) wants reflection-in-action to be fostered as well, and suggests that this requires an awareness of a dynamic process. Problem-based learning (Boud and Feletti, 1991) can be a proper method for achieving this, and brainstorming sessions and seminar group discussions (Lougharn, 1996) can help learners to begin to engage in reflection-in-action and learn from how others reflect. Guest *et al.* (2001) suggest that to develop the quality of dynamic expertise, educators and mentors must challenge learners to the limits of their abilities, and they should be prompted and encouraged to challenge their knowledge base and beliefs. They further suggest that educators must direct learners' attention towards their approach to their

practice as a whole rather than simply towards memorising facts and routines in isolated pockets of knowledge. Educators should also convey analytical techniques and skills to help them recognise potential ‘blind spots’ in their practice.

2.4 How can We Make Professionals Capable of Refining the Profession?

The ultimate ability required for professionalism is the ability to see the role of a profession in the wider context of society, to challenge the existing practices and values of the profession according to the changing needs of society and to endeavour to bring about the required changes. This ability can be related to the tradition of reflection known as critical enquiry, discussed above. But the question is, why is this ability considered to be important only in the case of professions, and not in case of trades? Carr (2000: 248) points out that the centrality of ethical norms and principles in ‘professions’ distinguishes them from ‘trades’. The difference is that in the case of trades, ethical considerations are merely regulative in nature, while in case of professional engagements they are also constitutive of it.

Hence, it is imperative for professionals to constantly refer to the values their profession upholds with reference to the realities of their practice. Whitehead (1992:6) emphasises the innate tension between values held by professionals and the problems in practice in maintaining these values and suggests that reflection is the process which reveals this tension:

“ Think about how you have tried to overcome problems in your professional practice. I think such a reflection will reveal that you have experienced a tension in holding certain values and experiencing their negation at the same time in your practice.”
(Whitehead, 1992: 6)

It may be inferred from the above discussions that a commitment to values and regular reflection on those values is considered a necessary condition for professionalism.

This consideration is based on the following assumptions:

- (i) Values provide targets and standards for professionals and underlying theories to achieve these standards.
- (ii) It is not always possible to achieve those standards fully since practice is very complex and demanding.
- (iii) Reflection on experience with reference to values provides an opportunity to identify the causes of failure or under-achievement and possible remedial measures.

Regular reflection on experiences may lead to reflection on the wider context and practice; this may provide an opportunity to notice the changes taking place in the practice. Taking into account this notion of the centrality of values in various professions, curriculum designers and teachers in medical education have tried to incorporate mechanisms in the teaching–learning–assessment process that develop these values. Rituals such as ‘white coat ceremony’ and subjects like ‘medical ethics’ are an in-built part of the curriculum in most medical schools which have the sole purpose of inculcating values in would-be professionals. The emphasis on medical ethics education increased in the UK after the Pond report in 1987 (Goldie, 2000). Further attempts are being made to teach professionalism in medical education: for example, Tulane University School of Medicine introduced a programme called ‘Programme for Professional Values and Ethics in Medical Education’ in 1999 (Lazarus *et al.*, 2000).

Yet experience shows that inculcating values amongst professionals is not a simple or easy process. According to Silcock and Duncan (2001), the problem with values education is that it tends to focus on issues of definition and classification, teaching methods and the extent to which anyone can or should, impose their moral precepts on others. Miles *et al.* (1989) suggest that medical ethics education should not dictate a single moral viewpoint in a pluralistic society; rather it should teach doctors to be more circumspect, more reflective about themselves in relation to patients and about the relationship of their profession to the

larger community. This means that the teaching of the values must by definition focus on value acquisition, which is the process by which the learners come to see, for themselves, the worth of publicly prioritised activities.

This realisation leads us to the question of deciding what is an effective way to inculcate values in would-be professionals. The answer to this question is contained in the answers to more general questions, such as: What are the values of that profession? Are they universally applicable or context-specific? Are values eternal? Or do they change with the times, following changes in the wider social context? Even if values are defined, is it possible to teach and assess them? How can professionals acquire them? How can values be used to guide the practice in any meaningful and lasting sense?

In this scenario of uncertainty, Prilletensky and Fox (1997) suggest that the best solution is for professionals to be able to make explicit their values with justification for holding those values. But making values explicit does not mean that professionals should demonstrate their unfazed and unquestionable commitment to them; it is simply intended to provide the bedrock on which reflection on practice is based. What is more important is to identify core values and make a conscious effort to maintain them in practice. According to Prilletensky and Fox articulating values is important, since:

- (i) Some values may be innately in conflict with each other and professionals may unknowingly overemphasise one value at the expense of another: for example, doctors may like to give more time to each patient so that s/he is cured properly, but simultaneously they would like to see as many patients as possible within the available time.
- (ii) If values are implicit, it is difficult to change them, and they may become shackles instead of providing a vision. There is a need to review values regularly in the light of changing circumstances.

- (iii) Certain values have more potential to improve practice and hence articulating them may help in prioritising them.

However, a professional's values should be derived from the nature of what constitutes ethical and effective practice. It is a very complex process to define ethical and effective practice: individual professionals in isolation cannot do this. It requires the sharing of reflection; otherwise it may lead to self-fulfilling prophecies. Argyis and Schon (1974) suggest that there is a need to involve others in the process of reflection (Model 2 reflection) to avoid the formation of a kind of loop, which justifies 'theories in action' at the cost of 'espoused theories' and undermines the purpose of reflection. Carr (1995: 15) draws on the work of Stenhouse (1981) and suggests that the relationship between theory and practice must be understood in terms of the public sphere rather than the private. He argues that if professionals want to develop their understanding of theory (values), and use this understanding to develop their practice, then they should expose their research to public scrutiny where it can be criticised and may be used by others.

However, this type of public sharing of reflection on practice requires that it to be documented. As discussed in the first chapter, it is believed that a portfolio helps in documentation of values and reflection on achievement of those values within the constraints of the practice and the subsequent sharing of those reflections within a community of practice. On the basis of this belief, portfolio-based assessment (PBA) has been introduced at QSA. The present research also attempted to understand to what extent the above assumptions could be transformed into reality at the level of implementation and use.

2.5 Implementation of Theories of Experience-Based Learning for Professional Development in Medical Education in the UK

In line with the theories described above, the General Medical Council (GMC, 1993), in its document ‘Tomorrow’s Doctors: recommendations on undergraduate medical education’ directs that one aim of medical education should be to develop skills for lifelong learning in would-be doctors for their continuous professional development. To achieve these goals, it recommended that curricula should be revised with the aim of promoting curiosity-driven, self-directed learning and the critical appraisal of evidence. In a similar vein, the British Medical Association (BMA, 1995) recommended that a learning environment must be created which encourages a connection between theory and practical experience, and the ability and willingness to choose what to learn and how to self-assess what has been learned. In another document, ‘*The new doctor*’, the GMC (1997) notes that for the ‘general clinical training’ imparted during pre-registration house year, when medical graduates learn to become doctors by providing a service, “*The most important (educational) element is experiential learning.*”

On the basis of these recommendations, a variety of techniques such as Task-Based Learning (Race, 2000), Multi-professional working (Bligh, 1999b), Service-Based learning (Stanton and Grant, 1999) and Problem-Based learning (David *et al.*, 1999) have been introduced in the medical curriculum. Of these techniques, Problem-Based Learning is being considered as the technique most likely to promote experiential learning and self-directed learning (SDL), judging by the results of implementing it a large number of medical schools (Boud and Feletti 1991). The effectiveness of PBL as an experiential learning method and its strengths in promoting SDL, together with problems in its implementation, are discussed below.

2.6 Problem-Based Learning and Self-Directed Learning

Problem-Based Learning is seen as an alternative to objective-based learning (OBL) (or outcome-based learning). Objective-based learning is criticised for its limitations in covering complex learning and for focusing attention on performance rather than on learning (Swann, 1999:59). In her words:

“Performance is a product of learning (and other factors), but it is not synonymous with learning, which is a process.....performance refers to what the student can be observed to do, and learning is merely inferred. The use of objectives focuses attention on readily observable events, and treats learning as a linear process. These objectives in particular fail to address the development of attitudes, and changes in long-term dispositions and potentials.”

This criticism is based on the belief that only the most trivial and basic learning can be planned in detail and predicted with accuracy (Barnett, 1994). Moreover, the emphasis on OBL results in a failure to address the open-ended nature of human endeavour, since it tends to encourage a blinkered view of what will be possible and successful in practice (Swann, *ibid.*). Swann further argues that every action may create some knowledge, and that to focus solely on outputs rather than on process may result in ignoring knowledge which otherwise could have been recognised. In many cases, OBL results in a surface as opposed to a deep approach to learning (Coles, 1998).

In addition to fostering creation of knowledge, PBL is seen as an educational method which is learner centred and engenders the habit of SDL (Albanese and Mitchell, 1993; Barrows, 1986; Walton *et al.*, 1989). According to Race (2000), PBL enhances motivation, since learners work on the problems which are relevant to their professional work; moreover, they obtain quick feedback in terms of the effectiveness of the solutions they have found. It provides conditions that support student learning and encourages staff to reflect on their personal approach as educators (Maudsley and Strivens, 2000). On the basis of these assumptions, PBL was introduced for the first time about thirty years ago at McMaster by Howard Barrows (Davis and Harden, 1999). In view of its positive qualities,

about 150 medical schools worldwide have modified their curricula to support PBL. In the United Kingdom, Manchester, Glasgow and Liverpool have been using PBL since 1990 (Spencer and Jordan, 1999).

However, PBL also has its limitations at both theoretical and implementation levels. At the theoretical level, the basic question is; how can pure sciences be taught with the help of PBL? (Albanese and Mitchell, 1993). Does every student have to reinvent the wheel? At the level of implementation, it is seen to require more resources, including staff (Vernon and Blake, 1993; Mifflin *et al.* 1999; Christopher *et al.*, 2002,). Berkson (1993) suggests that there is a need to assess the availability of resources before introducing PBL. As a result of these concerns, some medical schools, such as Newcastle and Dundee, have adopted a mixed approach, in which they have combined learner-centred strategies including PBL with traditional OBL (Spencer and Jordan, 1999). The key features of this type of approach are:

- (i) Learning outcomes are furnished to students to provide them with a context and a direction for their learning.
- (ii) Content necessary for learning is not provided, and students are expected to explore it themselves.
- (iii) Study guides are provided to facilitate self direct learning.
- (iv) Problem-oriented, task-based and work-related experiences are arranged to reinforce understanding.

Approaches like this may be good, pragmatic strategies in the existing circumstances and may make students more self-directed as learners. Yet, the provision of outcomes in advance to students may undermine the creation of knowledge during the learning process. Moreover, solving problems is not the only challenge for professionals. According to

Schon (1983:16), the identification of problems in a complex problematic situation and dealing with them simultaneously presents a difficult challenge for them:

“The situations of practice are not problems to be solved but problematic situations characterized by uncertainty, disorder and indeterminacy”.

He goes on to quote Ackoff (1979) as follows:

“Managers are not confronted with problems that are independent of each other, but with dynamic situations that consist of complex systems of changing problems that interact with each other. I call such situations messes. Problems are abstractions extracted from messes by analysis; they are to messes as atoms are to tables and charts.....Managers do not solve problems: they manage messes” (Ackoff, 1979, as quoted by Schon, 1983: 16)

Though PBL fails to address this concern, it is a step in the right direction. However, Miffin *et al.* (2000) have found inconsistencies in the interpretation of SDL which undermines the potential of approaches like PBL. According to them, some interpretations of self-direction are counterproductive, and students have become overly dependent on direction from teachers. Even the notion that in PBL, students decide their goals is challenged by Miffin *et al.* (*ibid.*) since in reality, the cases provided in curriculum define the learning. There is also a tension between the learning goals hidden in cases and the goals set by students. Dolmans and Schmidt (1994) found that generally, in PBL, students become better self-directed learners, but if sufficient resources are not available then students may tend to become more dependent on teachers and more assessment-driven. Kaufman (2000) has pointed out that PBL in medicine has focused on the pre-clinical setting, and the development of clinical reasoning skills has been a complementary goal. He has also raised the point that the effects of PBL on clinicians in practice are not being researched. According to Gresham and Philip (1996), there are cultural and environmental differences between the pre-clinical and clinical settings and PBL has done little to mitigate the discontinuity between these settings. These concerns raise questions about the suitability of PBL as a method for work-based learning. Nendaz *et al.* (1999) point out that reforms in

the curriculum are not followed by suitable reforms in assessment, which has undermined the potential of PBL. According to Rothman (2000), after thirty years of PBL experience it is now time to acknowledge that serious limitations exist and that there is a need to move forward.

Schmidt (2000:243) challenges the basic assumptions underlying SDL:

“I hold the belief that the importance of lifelong learning as a means of keeping up with the development of the profession is overemphasised. Certainly, the biomedical sciences are growing at a tremendous rate, but much knowledge produced has only limited practical value or takes many years to turn into something that can be usefully applied in professional practice.....I only call attention to the fact that the initial medical training may be an adequate basis for a practice for an extended period of time, in particular, because physicians seem to learn from their practice as well.”

Such statements from an academic, who has carried out extensive research on SDL and the role of PBL in fostering it in students, indicate that there still exists some confusion about the roles of SDL and PBL. The main source of confusion is that lifelong learning is seen merely as a process of acquiring new knowledge created by others in formal educational settings, and not as the process of self-learning from day-to-day practice.

Similarly, SDL as a means to collect more knowledge in a better way is accorded importance by Mifflin *et al.* (2000:302), who claim that

“Dolmans and Schmidt found that,they (students) become ‘better self-directed learners as a result of being in the curriculum for a longer time, and hence, becoming more experienced’. In the Graduate Medical Course, we found that students became more rather than better self-directed learners as a result of growing confidence in the tutorial process.”

This shows that some academics in the field of medical education, even those who advocate PBL and SDL, do not appreciate the transformative aspect of self-directed learning, and they see these approaches as simply better methods for the collection of new information.

Thus the challenge to design teaching-learning strategies which can produce reflecting and self-directed learners at affordable costs, remains.

2.7 Portfolio and Learning for Professional Development

In this scenario a portfolio is seen as an educational tool that can help to produce self-directed and reflecting professionals (Borko *et al.*, 1997; Fung *et al.*, 2000; Wolf *et al.*, 1995). Fung *et al.* (*ibid.*) draw on Brown (1992) and suggest:

“One approach to creating self-directed learners is through the utilisation of a learning portfolio, a collection of evidence which demonstrates the continuing acquisition of knowledge, skills, attitudes, understanding and achievements reflecting the current stage of development and activity of the individual.” (Fung *et al.*, 2000: 475)

In a similar vein, Friedman Ben David *et al.* (2001: 538) argue that:

“Portfolios present an ideal method of assessing professional development, as they enable the assessment of the doctor’s progress matched against the professional criteria overtime. Portfolios also enable professional development to be assessed at different stages of a practitioner’s career.”

They further suggest that the purpose of creating a learning portfolio is to collect one’s learning experiences together in order to promote reflective thinking about past experiences and to determine the direction of future learning. According to them, a portfolio can help learners who are in-service training to make the transition from learning with assistance (i.e., during training) to learning without assistance (i.e., during independent practice). Challis (1999:370) and Greaves and Gupta (2003) suggest that in the context of medical education also, a portfolio recognises and encourages autonomy and supports reflective learning, both of which are integral to professional education and development.

Portfolios are extensively used during the training of student teachers to encourage reflection, according to Barton and Collins (1993); Loughran and Corrigan (1995); and Zubizarreta (1994). These proponents of portfolios suggest that portfolios provide an opportunity and a structure for student teachers to describe and record their experiences, and reflect on what, how and why they teach; this reflection in turn may result in the articulation of their professional knowledge and values and in the creation of new knowledge. A study of the literature written about the portfolio in teacher education suggests that it has the following qualities that foster learning in student teachers:

(i) It Offers Prospects for Self-Regulated Learning

A portfolio gives learners direct responsibility for developing their expertise (Herman and Winters, 1994). According to Haertel (1990), if portfolios are used as a learning tool, rather than as an assessment tool, they provide an insight into level of performance in comparison to goals set by an individual, which leads to valid feedback for acquiring expertise. Moreover, this feedback is owned and accepted more by the individual compared to feedback provided by someone else. Fisher and King (1995) suggest that a portfolio helps professionals to take charge of the goals and strategies of their own learning. Jarvinen and Kohonen (1995:29) suggest that:

“ In the course of learning the portfolio becomes a kind of autobiography of growth. By learning to organise their learning experiences for themselves and sharing them with others they are able to get a deeper understanding of themselves. The portfolio helps the learner to extract learning from the experience by analytic reflection. It will increase the student’s involvement, responsibility for and ownership of his/her learning.”

Butler and Winne (1995) add to this argument by suggesting that in a way a portfolio offers prospects for self-regulated learning. However, they emphasise that the benefit of portfolio use can be realised only if the quality of reflection is such that it provides relevant feedback to the learner. Smith and Tillema (1998) report that there is a lack of research into the quality of self-feedback generated by portfolio use. In this research, therefore, the effectiveness of self-feedback provided by a portfolio will also be explored.

(ii) It Makes Them Aware of Their Practice and Themselves

Dutt-Doner and Gilman (1998) found that the process of portfolio preparation (PPP) makes student teachers aware of their own abilities, attitudes, beliefs and motivations. It also forced them to think about the values of being a teacher and the kind of teacher they wanted to be. Borko *et al.* (1997) found that fifteen out of twenty one student teachers felt that the process of putting together a portfolio helped them to think about their strengths and limitations as developing teachers. They also found that the PPP made them more

realistic about their teaching and about identifying ways to improve it. Eleven teachers suggested that this process helped them to make connections between theory and practice. Glean and Hight (1992) report that a portfolio provides personal and professional educational evidence of student's learning. They further report that it contextualises learning and links experience with personal interpretation. Geltner (1993) adds to this view by suggesting that a portfolio helps learners to appreciate the context in which the experience is taking place as well as his or her own growth over time. He further argues that it makes a learner recognise that he/she is also continuously changing along with the change in task with every new situation, and that the basis for future learning comes from growth in understanding, from practice and from the integration of knowledge over time. Thus Geltner (*ibid.*) concludes that the portfolio makes learners aware of themselves and their practice.

(iii) It Reveals the Conflict between Espoused Theories and Theories-in-Use

The PPP engages student professionals in reflection on their disposition towards the profession, and this reflection on their values and beliefs about their profession and problems faced in real-life situations exposes the conflict between their espoused theories and theories-in-use. Wenzlaff (1998: 568) conducted a research study to determine whether the PPP is able to make pre-service teachers think about their disposition towards their profession, and he found that:

“as student teachers reflect about their portfolio pieces, they begin to make connections to several things: observation over the years as students, theories learned in professional education coursework, beliefs developed about teaching. Beliefs about themselves as teachers begin to develop through this process of thinking about what they know and connecting what they know to what they have learned and seen in practice.”

Cole (1992:27) also reports similar findings:

“Portfolio artefacts coupled with reflection, permit vision beneath the surface of performance itself and examines decisions that shape pre-service teacher action.”

Similarly, Friedman Ben David *et al.* (2001) argue that the PPP also provides a safe opportunity to explore errors in professional medical practice and strategies to avoid future errors.

(iv) It Helps in Establishing a Fruitful Dialogue among Student Teachers and Peers

Finlay *et al.* (1998) report that a portfolio encourages interaction between students and their teachers, leading to improvements in the thinking ability and problem-solving skills of students. The ideal practice of portfolio development requires that students should discuss their portfolios periodically with concerned teachers and peers. Students should not only disclose their performance but also their reflection on these performances with whomever they choose to discuss their portfolios with. According to Geltner (1993) and Shulman (1992), this process of reflection by teachers (or experts) on the performance of students (novices) establishes a cognitive/metacognitive dialogue between student and teacher and amongst peers. As a result of this dialogue the cognitive and metacognitive processes used by experts to handle complex tasks are made explicit, whereas usually these processes are carried out in the brains of experts and remain hidden to novices. A process of 'reflection by expert on reflection of novice' results in externalising experts' cognitive processes and situated learning in a variety of contexts of use. This helps the learner gain a fuller understanding of abstract conceptual knowledge and establishes deep connections between such knowledge and problem-solving contexts.

Apart from the cognitive and metacognitive aspects of dialogue, the process of portfolio preparation also helps in developing personal relationships amongst peers and between learners and teachers (Dutt-Doner and Gilman, 1998). This is an important finding, since for effective communication, personal relationships free from fear and mistrust are crucial. Dutt-Doner and Gilman further suggest that the PPP also helps in developing written

communication, since it necessitates selecting, organising and presenting experiences in written form. Thus the process develops written communication and facilitates verbal communication.

Concerns about Portfolios

As discussed above, most of the literature reviewed indicates positive points in favour of PBA, but there are also some concerns. Lichtenstein *et al.* (1992); Nagel *et al.* (1992); Tierney (1994) and Newman and Smolen (1993) raise key questions: for instance, concerning whether it is a tool to support learning or to support assessment; whether it is suitable for formative assessment or summative assessment; whether it is a process or a product; whether it is an individual document or a public document. Since these issues relate also to assessment of learning, these are discussed in the next chapter (Chapter no. 3) after discussing the relevance of a portfolio to current approaches to assessment.

2.8 Curriculum and Portfolio

Curricula for all levels and types of education aim to develop all three domains of personality: namely, cognitive, psychomotor and affective, but testing methods have not been able to assess the affective domain, and consequently the emphasis of teaching learning has been mainly on the cognitive and psychomotor domains (Wilson, 1992). Thus traditional testing methods have had a narrowing effect on curricula. In a way, assessment served the socio-political cause of selection and control, rather than the educational cause of improving learning in all domains of the curriculum. Broadfoot (1986:43) argues:

"Public acceptability can no longer serve as a sufficient criterion for the acceptability of assessment procedures; the elevation of educational concerns to a position of prime considerations is long overdue."

In a similar vein, Biggs (1995:15) suggest for a model of assessment based on the qualitative and contextualised nature of knowledge:

"The critical single notion underlying this is, amazingly enough, that educational considerations should derive the testing and not the psychometric, bureaucratic or political ones."

In this scenario, new methods of assessment, such as profiles, records of achievement and portfolios, are being tried so that assessment has a widening impact on the curriculum. Portfolios have gained currency because of their emphasis on reflection, flexibility to encourage a diversity of evidence and student-centredness. Their effect in widening the curriculum is noted by Geltner (1993:1):

"The idea of a portfolio focuses us to expand the range of options we would use as data to use in evaluating student growth and making instructional decisions -----it allows us to define achievement in broad, diverse, adoptive, multidimensional terms, rather than narrow restrictive ones."

The broadening or widening effect of assessment on curriculum is so fascinating that Torrance (1995:2) has suggested that assessment should lead the curriculum (instead of the curriculum leading assessment):

"More recently, however, this coincidence of interest between assessment agencies and curriculum developers has been given a new twist by arguments suggesting that change in assessment must come first and lead (or even drive) the curriculum in a desirable direction-broaden the curriculum and raise the standards of testing."

Lichtenstein *et al.* (1992) also found that portfolios enable students to integrate other facets of the curriculum in a coherent way. In a similar vein, Nagel and Engel (1992) report that there was a general agreement that this reform had produced a shift in curricular focus in teacher education. Shulman (1992) also suggests that the use of portfolios by teacher educators to assess themselves has helped in achieving a curricular coherence which was otherwise lacking. This research study therefore also explores the effect of the portfolio in widening the curriculum.

2.9 Types of Portfolio

Portfolios are being used to serve different purposes, and accordingly their content differs. Portfolios are therefore classified on the basis of their purpose and content (Carroll *et al.*, 1996). Katz and Johnson-Kuby (1996) have described 10 variations of the portfolio, but in general three main types of portfolio are identified in the literature (Wade and Yarbrough, 1996; Smith and Tillema, 2001), namely the 'dossier type portfolio', the 'course-related

learning portfolio' and the 'reflective portfolio'. Wolf and Dietz (1998) refer to these types as 'employment portfolio', 'assessment portfolio' and 'learning portfolio', respectively. These are discussed below:

(i) Dossier Type Portfolio

These portfolios are used as an instrument for documenting work performance for the purpose of external appraisal or review (Graves and Sunstein, 1992; Swanson *et al.*, 1995). In other words, the purpose of these portfolios is to show and prove achievement through a collection of samples of evidence of learning or achievement (Peterson, 1995). According to Bennett and Ward (1993), such portfolios are used quite widely for achievement evaluation and the standardised testing of performance. The portfolio introduced by the BMA (British Medical Association) for the yearly appraisal of consultants can for the most part be classified in this category. Diez (1994) uses the term 'showcase portfolio' for such portfolios and draws an analogy with the 'sonnet' type of poem (a short poem of 14 lines), which owing to its rigid size and form restricts the full expression of the feelings and thoughts of the poet. She argues that in a showcase portfolio one's performance is focused outward, toward other persons, and hence opportunities for reflection or self-assessment are minimal. This type of portfolio is used for summative assessment or for high stakes assessment, such as admissions to higher courses and selections for the jobs.

(ii) Portfolios for Course-Related Learning

The main purpose of these portfolios are to record the progress of learning with reference to the learning objectives of any educational programme, especially in the case of work-based or on-the-job education (Herriot, 1989). Such portfolios allow learners and teachers to see the amount and quality of work done by the learners within a specified period of time. This helps to identify any gaps in learning and the remedial measures needed to bridge those gaps (Winsor *et al.*, 1999). In a way, such a portfolio assists the formative assessment of learning at a macro level (that is assessment of learning over a period of time rather than that of an individual performance). At Samford University, a course-related learning portfolio is used to support Problem-Based Learning (PBL). The website of this

university dedicated to PBL (Samford University, 2002) describes a course-related portfolio as a focused, qualitative look at various aspects of the learning experience related to the course. Diez (1994) uses the term 'developmental portfolio' to describe this type of portfolio and draws an analogy between such a portfolio and a mirror: as a mirror indicates the physical strengths and weaknesses, the developmental portfolio indicates progress in training and the areas where improvement is required. She further argues that since the focus of such portfolios is not to showcase the best work but to describe progress in learning over a period of time, these portfolios lead to better formative assessment.

(iii) Reflective Learning Portfolio

The focus of this type of portfolio is to engender a better understanding of experiences by engaging the learner in reflective processes (Smith, 1998). This type of portfolio is used as a document to record the evolving thoughts and actions in which a professional engages for the purpose of achieving professional goals during practice (Hamilton, 1998). In such portfolios the focus of reflection is on an individual performance, rather than on performance over a period of time. Diez (1994:12-13) compares such a portfolio with a map, since this type of portfolio begets the self-assessment and shows the correct path to be followed for improvement:

"Self-assessment is the primary tool that makes the portfolio like a map. Using explicit criteria, the student develops the ability to look at her own work and determine the strengths and weakness evident in a particular performance or across a set of performances. She begins to set goals to address the areas she needs to develop and deepen her areas of strength.....Ultimately the highest 'stakes' are those we set for ourselves. The portfolio as a map captures the sense of a process made a habit of mind, of a commitment to ongoing professional growth."

Most portfolios can serve all the three purposes discussed above to a different degree. However, a portfolio can be classified in any one category depending upon the context and the main purpose for it is used. The portfolio considered in this study was designed principally for the second and third categories: 'course-related learning' and 'reflective learning'. It will be seen to what extent it achieved its intended purposes at the QSA.

2.10 Portfolios in Medical Education in the UK

In the UK, the Royal College of General Practitioners (1993) in its occasional paper no. 63- 'Portfolio-Based Learning in General Practice' - suggested for the first time to use portfolios for the purposes of learning and assessment, and they were introduced in 1994 (Mathers *et al.*, 1999) for the re-certification of consultants and general physicians (GP). Before this, the system of PGEA (postgraduate educational allowance) was in use, in which GPs were supposed to attend continuing medical education (CME) programmes of a certain duration every year. However, Difford and Hughes (1992) found that most CME programmes were didactic in nature and very few were practice-based. A review report on continuing professional development in general practice (Department of Health, 1998) also criticised the PGEA system as too didactic, too uniprofessional and too secondary care-based. This report recommended introducing a practising professional development plan (PPDP). Cornford (2001) argue that PPDPs would be able to take care of the learning needs of individuals, the developmental needs of the practice as a whole, and the priorities of larger organisations within the NHS. A similar concept is being introduced in various guises across the breadth of medical education. These include personal learning plans, learning contracts, learning agreements, personal development planning, personal audit, personal action planning and learner profiling (Challis, 2000). However Challis suggests that the portfolio is such an inclusive and flexible tool that it encompasses all of these tools within itself and hence it is replacing these methods/tools in most cases.

The University of Sheffield has taken the lead in the UK in introducing profile-based assessment (Usherwood and Hannay, 1992), and subsequently portfolio-based assessment (Usherwood *et al.*, 1995), for the subjects of General Practice and Public Health Medicine at undergraduate level. However, The focus of these interventions has been on summative assessment rather than on learning. On the other hand portfolio learning has been introduced on a pilot basis with the purpose of promoting reflective learning in the context of general practice training in one region of Scotland (Snadden *et al.*, 1996). A research study was conducted to explore the effectiveness of this intervention (Snadden and

Thomas, 1998), and the conclusions drawn from this study were that portfolios are effective as a method of planning training at an individual level; of identifying gaps in the training; of documenting significant learning; of analysing difficult experiences; of developing a dialogue between tutor and learner, and of giving and receiving feedback. However, some problems were also identified, since portfolios were not found effective wherever there was not a good relationship between tutor and learner. Similarly, in cases where registrars were busy with their royal college exams they ignored the portfolios.

In the case of specialities such as paediatrics, portfolio-based self-assessment has been introduced for postgraduate education in the Mid and North Trent Regions (Challis, 1999). In this case, Challis found that portfolios are considered beneficial for promoting reflective learning and documenting experiences. Moreover, trainees and trainers alike want to maintain the individuality of portfolios and are against standardising it. However, she reports that in public health medicine, portfolio-based assessment has been introduced to support a national assessment scheme, although preparing a portfolio is not compulsory and is considered as an additional evidence of learning if produced by learners during the end of the year RITA (Record of In-Training Assessment) for progression to the next year of training.

The use of portfolio-based assessment has also been extended to assess the competence of general practice trainers in Wessex (Pitts *et al.*, 1998). The prospective general practitioner trainers found the portfolio educationally worthwhile and appropriate. Nevertheless, they felt that whether or not one benefits from its potential depends on the individual, since some individuals had prepared their portfolios without much reflection. Electronic Portfolios are used in the WISDOM project, which is an innovative educational project aimed at primary health care professionals, using the Internet to create a 'virtual classroom' (Fox *et al.*, 1999). Owing to their flexibility, electronic portfolios are found to be compatible with the concept of a virtual classroom and are found useful for promoting reflection leading to the synthesis of new learning into primary health care practice.

The portfolio as a learning tool was also introduced in the medical school curriculum at the University of Helsinki in 1994 for the subjects of obstetrics and gynaecology at undergraduate level (Lonka *et al.*, 2001). In their research study, Lonka *et al.* (*ibid.*) found that a portfolio was quite successful in supporting learning and especially in promoting reflective learning. In their view, it also provided an opportunity to learners to systematically record their experiences. Sharing portfolios with teachers also helped teachers to identifying learning difficulties. However, they found that some students complained about the excessive time and effort required to prepare the portfolios, while some students found it difficult to describe what they had learned and what they had not.

From the literature, it is evident that there have been some attempts in medical education at UK and Europe to introduce portfolio-based learning and assessment. Nevertheless, it can also be inferred that portfolios have not been established fully in medical education since their use is neither widespread nor integrated well with the rest of the curriculum. This scenario highlights the need for more efforts in propagating the use of the portfolio and also for being more precise about its purposes in different contexts, as well as for research to be carried out in order to identify any deficiencies and suitable remedies. Research is also needed to find out if there are other barriers in the education system, which are hampering the growth of portfolios across medical education. It is important to note with reference to this research study that I could not find any case of PBA in the speciality of Anaesthesia. Moreover, there are very few cases reported in the literature of the introduction of PBA at postgraduate level. In this context, portfolios were introduced to support learning and assessment for SpRs at the QSA in 2000. Although learners were given the freedom to choose the content of their portfolios, as an example they were also provided with a flexible structure. Since this portfolio is the core of this research study, it is necessary to describe its structure to reveal what was expected from it and that helped in deciding the direction of the research. The structure of the portfolio proposed to the trainees is discussed in Appendix no. iv.

Chapter 3:

Current Approaches to Educational Assessment and Portfolios

3.1 Current Approaches to Educational Assessment

The previous chapter discussed the importance of acquiring proper learning strategies for professional development. However, a substantial amount of the research conducted over the last two decades has indicated that it is assessment methods and requirements that are probably the most influential factors determining how and what students learn (Cheng, 1999; Boud, 1995; Herman and Golan, 1991 and Madaus, 1988). In this chapter, the theory and practice of assessment are discussed in the light of studies that explore how assessment influences the content and process of learning and how assessment might support learning processes to achieve the aims of professional education.

In 1982, The Hargreaves Committee highlighted the fact that a holistic view of education includes four purposes: namely, ‘application of knowledge’, ‘social and personal skills’, ‘motivation’ and ‘commitment’. The committee also noted that curricula including assessment schemes have focused only on the first purpose, which is the ‘application of knowledge’. Similarly, Macintosh and Hale (1976) suggest six purposes of assessment: (a) diagnosis (b) evaluation (c) guidance (d) grading (e) selection and (f) predication. Murphy and Torrance (1988:12) suggest that a seventh purpose - that of ‘motivation’- can also be added to this list. They further argue that in most cases, only grading, selection and predication are accorded importance, and that all other purposes, which are also central to the teaching-learning process, are either ignored or given only a lip service. Yet Biggs (1995) argues that as soon as we try to focus on the basic purposes of education, such as developing social and personal skills, engendering motivation and inculcating habits of

self-directed learning, we have to realise that educational, rather than psychometric or political considerations should drive testing. This realisation is currently leading to what some researchers refer to as a 'paradigm shift' in the theory and practice of assessing learning (Engel, 1994; Gipps, 1994). Black and Wiliam (1998) suggest that this shift should be mainly in the focus of assessment towards a formative, rather than a summative function. They point out that the nature of formative assessment is such that it is difficult to separate it from pedagogical processes, and hence a focus on formative assessment has brought assessment to the forefront of curriculum implementation. This shift is also leading to radical changes not only in the theory and practice of assessment but also in the teaching-learning process. Wolf *et al.* (1991: 31-33) note that:

"There is growing, if far from universal, impatience with student assessment that addresses chiefly facts and basic skills, leaving thoughtfulness, imagination and pursuit untapped.To counter this technically elegant but demonstrably distorting testing system, educators are beginning to examine and experiment with alternative forms of assessment. If nurtured and made rigorous, these alternatives might permit the assessment of thinking rather than possession of information.However, the design and implementation of these new forms of assessment will entail nothing less than a wholesale transition from what we call a 'testing culture' to an 'assessment culture'."

In the present scenario, therefore, types of assessment such as 'alternative assessment' 'authentic assessment', 'performance assessment' and 'competency assessment' are increasingly being preferred due to their inherent advantages, as argued by Tierney (1994:4):

"If these new forms of assessment provide a greater opportunity for students to learn higher order thinking, develop the habits of mind that help to learn, lifelong learning skills, and support contextual and individual differences, there are equally compelling reasons to believe that 'alternative' forms of assessment for teachers would increase our chances of achieving high and rigorous standards espoused in the current reform literature. This parallelism extends to concern about the persistent complaints that most teacher assessment systems promote cost-effectiveness and traditional notions of reliability and validity over authenticity and sensitivity to content and context differences."

The above comment raises the following issues about assessing professionals at the point of entry into the profession and during their careers, where assessment should:

- (i) provide a greater opportunity to learn higher order thinking;
- (ii) engender the development of habits of mind that helps to acquire lifelong learning skills;
- (iii) recognise contextual differences in learning experiences;
- (iv) take care of individual learning differences;
- (v) not promote 'reliability' at the expense of 'authenticity' and 'sensitivity'.

However, these aims also imply that traditional assessment methods have failed to address the above issues. Why is this so?

Biggs (1994:1) considers the assumptions underlying different modes of assessment:

" These dimensions interact to yield different modes of assessment, including different kinds of performance assessment: the measurement versus the standard model of the testing, quantitative and qualitative assumptions as to the nature of what is learned and whether learning and testing is situated (contextual) or decontextualized (general or universal). The modes of assessment so generated are suitable for different educational aims, but the most appropriate modes are under-represented in current practice, quantitative and decontextualised modes being greatly over-represented resulting in backwash often deleterious to teaching and learning."

Following, Biggs' argument, it is important to understand the debate about the following:

- (i) a measurement model v/s a standard model
- (ii) the quantitative nature of learning v/s the qualitative nature of learning
- (iii) assessment of decontextualised knowledge v/s assessment of situated knowledge

3.1.1 The Measurement Model v/s The Standard Based Model

Test developers, psychometricians and educators have long accepted the measurement model of assessment, based on test theory, which requires that test item scores are sufficiently consistent with each other that students may be ordered along a single dimension represented by that intra-test consistency (Taylor, 1994). The technologies of test construction, item selection and establishing reliability and validity followed from the basic assumptions of trait theory: namely, that humans consistently differ from one another on various traits and these differences can be reliably measured (Shepard, 1991). Wilson &

Kirby (1994) note that the technology of assessment that grew out of test theory lacked a basis in psychological theory; in a similar vein, and more importantly; Haertel (1991) points out that principles of assessment lacked a basis in education theory and the knowledge base of teaching. With changing educational philosophies, traditional test theory became decreasingly appropriate in the majority of classroom testing occasions. Specifically, the measurement model assumes the stability of the dimensions being tested, which is acceptable when the task is to discriminate between individual performances and to predict future performances. However, it is inappropriate to assess individual or group outcomes in relation to a particular curriculum, because the purpose of intervention in teaching is to achieve learning or to bring about a change in capabilities. It is therefore important from a teaching and learning point of view to assess incremental development or change, and a measurement model ignores this change.

On the other hand, a standard-based model focuses on pre-defined 'standards' of outcome, and successful students are expected to achieve all or most standards. The spirit of such a model was present in assessment systems used for 'licenses' or 'certificates' of practice awarded by some professional bodies, but in these cases, the technology and philosophy of this model were neither forceful nor explicit.

The criterion-referenced testing (CRT) movement was probably the first systematic attempt to move overtly in 'standards based' direction. A CRT model was based on certain assumptions which were drastically different from those of the measurement model.

According to Taylor (*ibid.*) these assumptions are:

- (i) Public standards can be set.
- (ii) They can be reached by most students.
- (iii) There are different possible ways to reach these standards.

- (iv) Fair and consistent judgements are possible to determine whether these standards have been met.

These assumptions are similar in nature to those underlying learning and instruction. In this sense, the CRT model is in harmony with the model of learning, but the CRT model also could not succeed in totality because the assumptions on which the standards were set, in most cases, were not very different from those underlying the measurement model or norm-referenced testing (NRT) itself.

Although CRT was an improvement as far as broadening the purpose of assessment is concerned, the link between assessment and instruction and the assumptions about the nature of learning remained unchanged. Cole (1990) has made explicit the two basic conceptions of the nature of learning that exist in our educational thinking: a quantitative or a qualitative view; the way we instruct or assess depends largely on the way we view learning.

3.1.2 Quantitative Nature of Learning v/s Qualitative Nature of Learning

The traditional way of thinking stems from a positivist mindset in the social sciences (Moss, 1992). Learning is concerned with acquiring 'specific discrete skills described as precise, well delimited behaviours' (Cole, *op. cit.*:2). These skills are considered as discrete quanta or packets of procedural knowledge, which can be made explicit. As far as assessment is concerned, such quanta of knowledge are considered independent of each other. In this tradition, the curriculum is reduced practically to a cluster of discrete units such as facts, concepts, principles, skills, competencies, behavioural objectives, performance indicators and so on. Consequently, assessment is focused on the number of such quanta achieved by the students.

One repercussion of this philosophy is that teaching becomes the process of transmitting these discrete quanta of knowledge or of the curriculum from teacher to learner (Trigwell *et*

al., 1994). Moreover, in this philosophy, it is assumed that the content of the subject matter is learned in binary units (correct/incorrect) and assessment is designed accordingly. The numbers of correct units are then counted to give an aggregate score, which works as an index of competence in the subject matter concerned. Multiple choice tests are the typical example of this philosophy, where achievement is represented as a number of total items correct, any one item being worth the same as any other.

Whether or not the effect of multiple-choice and other testing formats having their genesis in quantitative traditions is deleterious or beneficial is a debatable issue, and the stand taken by academics depends on their assumptions about the nature of learning. There are scholars on both sides. Frederiksen (1984) warns against the harmful influences of quantitative testing, while academics who have faith in quantitative assumptions about the nature of learning see deliberate and systematic teaching to the test as sound teaching (Shepard, *op. cit.*). This concept is further elevated to the extent that Popham (1987) has even proposed Measurement Driven Instruction (MDI). It is clear from the above discussion that quantitative assumptions underlie both norm-referenced testing (NRT) in a traditional measurement model and criterion -referenced testing (CRT) in Popham's model. The issue is thus not simply one of the measurement model versus the standard models (Taylor, *op. cit.*), but a question of one's assumption about the nature of the learning to be assessed.

Although the qualitative tradition stems from 19th century phenomenology, only recently has it expanded to the extent of developing an alternate paradigm for educational policy making. One underpinning theory of learning is constructivism as propagated by Piaget (1997, cited by Richard Fox, 1997). In constructivist theory, students are assumed to learn cumulatively, actually interpreting and incorporating new material according to what they already know. Different theories in this paradigm variously emphasise the individual,

social, cognitive, contextual or emergent nature of learning, but all agree on one main point, which is that the learner is an active person seeking meaning and constructing knowledge. Post-structuralists emphasise the social construction of knowledge (Delandshere and Petrosky, 1994), while some theorists have their views grounded in cognitive psychology (Biggs & Moore, 1993). According to cognitive psychology, understanding changes progressively as people learn, and qualitative changes take place at the level of both of what is learned and how it is structured. Therefore, understanding of a topic evolves cumulatively over the long process of learning and has horizontal interconnections with other topics and subjects and vertical connections with previous and subsequent learning in the same topic.

This discussion offers a new direction for learning and assessment. Learning is not merely a process of receiving and storing the correct knowledge, but of constructing understanding gradually. Moreover, this process has to be congruent with previous experiences, related to a profession or to a social part of life. One of the main purposes of assessment is to chart this longitudinal growth over time, i.e., from relative ignorance to relative competence (Geltner, 1993). Assessment within this quantitative framework may be of two basic kinds:

- (i) Developmental: The purpose of this is to discover whether students are developing in the competency in the domain of discipline, the focus here being on pure or discipline-based knowledge.
- (ii) Ecological: The purpose of this is to discover if the students can carry out tasks that are worthwhile, significant and meaningful. This has a focus on application and problem-solving or, in other words, on performance. This type of assessment deals mainly with work-based experiential learning, which normally depends on the context of the work.

Lohman (1993) has made another type of distinction regarding the abilities to be assessed, which is similar to the quantitative/qualitative differentiation. According to him, 'crystallised abilities' can be assessed for their application and 'near transfer' in 'familiar situations' while 'fluid abilities' may be assessed for 'far transfer' in 'unfamiliar situations'. The first involve lower order and the second, higher order cognitive abilities. Lohman further argues that for professional expertise, the development of a flexibly organised knowledge base related to fluid abilities may be more important than the attainment of minimum competencies, since the context in which a professional has to work is ever-changing. Therefore, education should involve both general or crystallised abilities and contextual or fluid abilities. However, the former currently dominate assessment.

3.1.3 Assessment of Decontextualised Knowledge v/s Assessment of Situated Knowledge

Following the ideas discussed in this chapter, ecological assessment can therefore be referred as the qualitative assessment of applied procedural knowledge, and is closely related to a more general movement referred to as 'authentic assessment' (Newman & Archibald, 1992). According to 'authentic assessment', the context of testing should be such that a student/trainee is forced to think, decide and act in a similar way as he or she would in the real world, with reference to the goal of learning. In other words, 'authentic' assessment means that the testing should require some kind of active demonstration of the knowledge in consideration, rather than a propositional account of it. Some action is required in a realistic setting, involving either the enactment of a skill or solving a problem. That is why the term 'authentic assessment' has gradually been superseded by the term 'performance assessment'.

Performance assessment (PA) is closely related to the concept of situated cognition. Brown *et al.* (1989) suggest that the only valid or powerful form of learning is that which takes

place in situated contexts. The concept of performance assessment seems congruent with this stand (Black, 1999).

The above discussion leads to the conclusion that context-based learning is much more powerful than decontextualised learning. However, educational systems are basically designed to inform the students about the knowledge generated by the experiences of mankind in various professions, since it is not necessary for every student to reinvent everything.

If we treat knowing and doing as completely inseparable, there will be problems in learning from the experiences of others. Even if teachers promote inductive, problem-based, and hands-on methods, there is much knowledge delivered by the education system which is legitimately propositional or declarative, and which therefore should be assessed as such, as well as being assessed in its real-world applications (Eraut, 1992). Thus, decontextualised and situated learning are equally important (Biggs, 1994). The main concern is that, until recently, decontextualized learning and its assessment have been overemphasised by the formal education system at the expense of contextual or situated learning (Maudsley and Strivens, 2000).

This disproportion results partly from the fact that the assumptions and practices of traditional measurement serve political and utilitarian administrative ends rather than educational ones (Wilson, 1994). Nowhere could this be clearer than in the current pressure to adopt well-defined competence-based testing (Ecclestone, 2000a).

The quantitative decontextualised framework of assessment, whether it be NRT or CRT is hard to resist, either because of direct pressure or simply because it is simple to implement. Therefore a more pragmatic approach is required to consider both types of learning (i.e., contextual as well as prepositional) and the assessment of these.

3.1.4 Effect of Socio-Cultural Setting on Assessment

Another concern has been raised relatively recently about assessment practices, namely that it is not only important to assess the contextual knowledge but also to take account of the socio-cultural context in which it takes place since assessment is affected in subtle and complex ways by this context, while the way assessment is conducted alters the context which exists in at the first place. Filer (2000) argues that there is a need to have a ‘sociological discourse of assessment’ in addition to the ‘technological discourse of assessment’ and draws on Wiliam (1997) to explain that:

“Assessment is conducted ‘on, by and for inherently social actors’ (William 1997:396) and so the social, cultural values, perceptions, interpretations and power relations of assessors and assessed carry important implications for processes and outcomes. The discourse is therefore particularly concerned with the social impact of assessment and the perpetuation of educational and social disparity, and its cumulative affects in shaping ways in which individuals and groups in society come to be seen, and to see themselves.” Filer (2000:2)

This argument may be more applicable for formative assessment of work based or practical knowledge, which is generally carried out in either in real life situations or in simulated educational settings, compared to summative assessment of propositional knowledge by paper and pencil tests which is a relatively isolated activity. Pryor and Torrance (2000) argue that the nature of the task and the role to be played by different students in achieving that task creates cerates the differential achievements of the participants, rather than simply acting as a context in which differential achievement is revealed. They build on the Bourdieu’s concept of habitus and field (1977) to conclude that the relationship between social or educational interaction, habitus and field are symbiotic.

“Interaction is not only structured by the practices of the individuals, derived from their habitus, and by the field in which this takes place, but also tends to structure each of them in turn. Thus it is formative, looking forward to and influencing the future and providing the way that society reproduces itself.” Pryor and Torrance (2000:124)

James (2000) report that Bourdieu's concept of *habitus* helps in understanding assessment as a social process since it refers to socially derived but mutable dispositions that create a sense of reality and sense of capability for each individual. He further argues that the concept of *field*, also proposed by Bourdieu, helps us understand the choices made by students and their subsequent actions. Although *habitus* relates to people's disposition towards current experience, it mainly develops from past experiences while *field* is created by the opportunities and rewards offered by the present settings in which the educational experience is being carried out. However, James (2000) warns that teachers should not only be concerned about the *habitus* and *field* of students but they should also be aware of their own *habitus* and *field* and their effect on the assessment experiences.

Raveaud (2004) in a comparative study of French and English infant school found that the form and content of teacher assessment reflect socially constructed and culturally situated conception of pupils and of learning. She argues that this relationship of socio-cultural conception and the formative assessment is so strong that by studying the way assessment is carried out, we can understand the teachers' beliefs and values.

Reeves et al. (2005) argue that merely changing individuals with the help of CPD is not enough to change practice and there is a need to recognise the 'political aspects of practitioner learning' through engaging in robust debates about purposes, values and practices of the profession leading to development of forms of collective and co-operative endeavour.

In a similar vein, Ecclestone and Pryor (2003) report that the complex interaction of students, '*habitus*' '*field*' '*cultural and social capital*' shapes how students are involved in their educational experiences and create their assessment and learning careers. They

emphasise the need for understanding the interaction of a particular ‘assessment regime’ with the ‘assessment career’ of students in order to appreciate the way students react to assessment. In a study about ‘formative assessment in post-16 education’ they found that informal and non-formal learning strategies, which were devised to foster ‘autonomy’ and ‘motivation’ proved counterproductive in case of less confident students who ‘played safe’ to maintain comfortable disposition to learning and set small targets for themselves even when it hindered their achievement. Thus learners’ ‘habitus’ and ‘field’ offered by assessment regime affected the learners’ agency:

“If learners see both formative and summative assessment as emotional events, where one’s very sense of self might be invested for a possible risk of failure, then an assessment career becomes a powerful strand in learning career with its formation of learning habitus or identity. This might illuminate how student develop cultural and social capital in different learning programmes. The iterative link between ‘assessment career’ and ‘assessment regime’ also enables the researcher to take account of how political regulation of design and implementation of assessment policy affect teachers’ and students’ values and beliefs about assessment.” Ecclestone and Pryor (2003:481)

Ecclestone (2004) also suggests that social and cultural capital may have empowering or constraining effects on the learning experiences and hence it is important for policy makers and teachers to understand the types of social and cultural capital offered by different assessment regimes and the factors which affect them.

Yoong Ng and Cervero (2005) raise one more question that in case of work based learning knowledge is associated with power and hence to assume the smooth flow of knowledge from seniors to juniors may be a fallacy in most cases. They argue that

“...the application of situated learning ought to take into the consideration the context of power relation in learning, not just the context of the practice and learning.” (Yoong Ng and Cervero (2005:499)

In the same vein Leathwood (2005) argues that assessment should not ignore issues of identity and power relations and assessment practices should lead to social justice rather than selectivity and inequality.

The above analyses indicate that socio-cultural context, power relationships, habitus and field of students and teachers affect assessment practices considerably. Thus assessment should not be understood as a purely cognitive process, as in this process, the social understanding and positioning of students are also unknowingly and unintentionally assessed. Moreover, this assessment in turn creates a new social understanding for all stakeholders leading to creation of new positioning for them. The following words of Pryor and Torrance (2000:126) may conclude the above debate.

“A key issue for teachers then is to be more aware of the sociological issues at stake and therefore to clarify the rules of the game.....However, by falling to recognise the issue as important, assessment policies and classroom practices are likely to reinforce and perpetuate the poor performance of the many school people.”

3.2 Effect of Assessment on Autonomy and Motivation

Any assessment or approach not only affects the amount and quality of learning but may also affect the students' attitudes towards learning. Black and Wiliam (1998) draw on Butler (1988) and argue that grades and inappropriate language for feedback may adversely affect the motivation of the learner:

“A significant feature here is that even if feedback comments are operationally helpful for a student's work, their effect can be undermined by the negative motivational effects of the normative feedback, i.e. by giving grades..... They also support the view that pre-occupation with grade attainment can lower the quality of task performance, particularly on divergent tasks.” (Black and Wiliam, 1998:13)

Entswistle (1988) suggests that there are distinct types of motivation that affect the outcome of learning both quantitatively and qualitatively. He further argues that extrinsic motivation leads to a surface approach to learning, while intrinsic motivation leads to deep

approaches to learning. The influence of assessment on autonomy and motivation in learning is considered important and one view is that a good assessment system should also take these factors into account (Entwistle & Ramsden, 1983; Laurillard, 1984).

Wills (1996) suggests that a good assessment model supports students' desire to learn, rather than imposing on them a set of demands and expectations, which will blight their intrinsic motivation.

These concerns are also reflected by Ecclestone (2000a: 141), who notes the effect of recent trends in the UK:

"Further challenges arise from the Kennedy Report (1998) on further education, the Fryer Report (1998) on lifelong learning and the National Commission of Inquiry into Higher Education (1997), which call for more accessible forms of assessment and a move away from demotivating norm-referenced examinations in order to encourage 'inclusiveness' in formal learning programmes."

She further suggests that the methods, goals and criteria of assessment all have a substantial effect on students' autonomy and motivation in learning. In her words:

"From a humanist perspective, the drive for autonomy itself is both an intrinsic motivator and a goal of learning. In assessment, motivation arises from self-defined goals and self-referenced (ipsative) criteria, opportunity to reflect on and evaluate one's own learning and a negotiated curriculum between teachers and students. For many humanists, summative assessment generally, and OBA (outcome-based assessment) in particular, are inimical to developing intrinsic motivation." (Ecclestone, *ibid.*: 144)

Thus she suggests that if intrinsic motivation and a higher level of autonomy are to be fostered, then assessment should be designed with an emphasis on self-and peer assessment.

Ecclestone (2002) also argues that motivation and autonomy are inter-linked and interdependent and foster each other and further points out that autonomy is not only limited to critical thinking but that it may also have a positive influence on the effectiveness of learning activities. She explains this as follows:

"Autonomy from this perspective, therefore, derives from tacit and overt meta-cognitive planning and from monitoring and reviewing one's learning. Such processes are integral

to intrinsic motivation and deep engagement with the content and process of learning within subjects” (Ecclestone, 2002:34-35)

She draws on Prenzel *et al.* (2000) and argues that students’ motivational states can fluctuate across a spectrum of motivation according to the nature of an educational task and the context of learning, and that different types of motivation are linked with different types of autonomy. Ecclestone (2000b: 149) proposes a typology of different types of autonomy- technical, personal and critical- along with their aims, the nature of the knowledge created by them, source of authority and the assessment methods required for each type (See Appendix no. xvi). She further argues that extrinsic motivation can lead to intrinsic motivation, and that although teachers should aspire to achieve for intrinsic motivation, extrinsic motivation should not be frowned upon. Moreover, different types of motivation are engendered by particular social-cultural, institutional and individual contexts and hence teaching and assessment practices should take into account social as well as individual factors. Individual factors can be taken into account by involving students in fixing the standards and criteria of assessment and this can be achieved by 'negotiations' and 'deep' internalisation of what count as external standards. Ecclestone and Swann (1999b) suggest that even knowing students’ expectations concerning the assessment process at the outset may help in this regard. In a similar vein, Wolf *et al.* (1991:52) argue that:

“....assessment is not a matter for outside experts to design, rather it is an episode in which students and teachers might learn, through reflection and debate, about the standards of good work and the rules of evidence.”

At the highest levels of autonomy and motivation, standards (set by students informally for themselves) can be 'ipsative'. Thus, self-assessment is seen as an alternative to teacher-centred assessment in eliminating the ill effects of assessment on learner autonomy and motivation. The concept of self-assessment should therefore be discussed in detail in reference to this study.

3.3 Self-Assessment: a facilitator for autonomy and motivation

Rogers (1983) argues that the process of autonomous learning is adversely affected if assessment is unilaterally determined by teachers. He explains:

“The evaluation of one’s own learning is one of the major means by which self-initiated learning also becomes responsible learning. It is when the individual has to take responsibility for deciding what criteria are important to him, what goals must be achieved, and the extent to which he has achieved those goals, that he truly learns to take responsibility for himself and his directions.” (Rogers, 1983:158)

According to Heron (1995), authoritative and unilateral assessment leads to external motivation which engenders intellectual alienation. He explains that this happens because students lose their excitement about learning and become habituated to exercising their intellect in the onerous assimilation of a mass of alien information. He suggests that such assessment methods have undesirable consequences on persons and professions:

“Such alienation during the learning process while acquiring knowledge and skills can extend after qualification and graduation into vocational alienation: the person exercises his vocational role in a way that is cut off from his real needs, interests, concerns and feelings, and hence uses the role in his human relations with his clients somewhat defensively and rigidly. There are two extreme variations of this: the professionalisation of misfits and the misfit of professionalism. The former occurs when the extrinsic attraction of a profession’s power and status seduce into it those whose real interests and abilities lie elsewhere. The latter occurs when the professional blindly and unawaresly tries to close the gap between self and role by compulsively and inappropriately ‘helping’ his (sic) clients.” (Heron, *ibid.*: 81)

He further criticises any unilateral assessment system because it only develops technical competence and fosters theoretical and applied intellect. Such assessment also excludes from the curriculum personal development, interpersonal skills, and the ability to be aware of, and work with, feelings, since it represses the autonomy, reciprocity and mutuality required for such developments, all of which are vital for professional growth. This means that authoritative and unilateral assessment systems are not suitable for developing certain qualities in professionals. Moreover, for professional growth, the habit of reflection on experiences is considered one of the key factors (as discussed in the previous chapter). In contrast to authoritative assessment, self-assessment is considered to promote reflection:

“The list of features likely to promote reflection directly parallels features likely to promote self-assessment. The similarities are such that it is not useful to consider reflection and self-assessment as entirely separate ideas. Self-assessment is a reflective activity and when well designed, develops reflective skills. There are close links between self-assessment and reflection. Indeed the former can be regarded as a subset of the latter.” (Boud, 1997:34)

Heron (*ibid.*:78) notes that for a well-rounded education, three facets of intellectual capacity, namely, subject knowledge, learning to learn and self-assessment, should develop together:

“ I am arguing that for the young adult, three things go together: the capacity to get to know the content of a discipline, the capacity to know how to get to know it, and the capacity to know that he has got to know it. ”

Black and Wiliam (1998:54) highlight the importance of self-assessment as follows:

“.....ultimately the action to close that gap [between existing work and the required quality] is to be taken by the student; a student who automatically follows the diagnostic prescription of a teacher without understanding of its purpose or orientation will not learn. Thus self-assessment by the student is not an interesting option or luxury, it has to be seen as essential. ”

However, according to Heron (*ibid.*: 86), self-assessment is more important for professionals, not because it enables them to assess the outcomes of learning but because of its effectiveness in assessing the process of learning.

“Assessing how I learn and how I provide evidence of what I have learned is really more fundamental than assessing what I have learned. The shift to self-direction and self-assessment starts to make process more important than content. Procedural competence is more basic than product competence, since the former is a precondition of providing many good products, while the latter is one-off- each good product is strictly witness only to itself. ”

Van Dalen (2002) points out that current assessment practices in medical education undermine self-confidence, motivation and critical thinking, and hence there is a need for developing schemes of assessment which include a component of self-assessment, so that medical students can feel themselves to be part of the assessment process and can learn about assessing themselves. In a study of the Fellowship by Assessment (FBA) programme, which is implemented for improving the performance of GPs and providing them with professional challenges, Lings and Gray (2002) found that the involvement of

GPs in the assessment process bolstered their self-esteem and motivation. Similar findings are reported by Mathers *et al.* (1999), who conducted a pilot study comparing portfolio with postgraduate educational accreditation scheme (PGEA) for the continuing education of GPs and found that GPs appreciated the self-assessment part of the portfolios since it helped build their self-confidence and motivation.

It can be inferred from the above discussions that in order to foster the qualities of lifelong learning, reflection, autonomy and motivation in professional students, self-assessment is a viable alternative to authoritative and unilateral assessment. Yet the key question remains as to whether or how it can be introduced in formal education systems. Moreover, the concept of self-assessment should be introduced in such a way that it can fit well with existing assessment schemes. Some experiences of using the concept of self-assessment in the medical profession are discussed later. Before that, it is necessary to understand how these current approaches to assessment relate to notions of reliability and validity.

3.4 Concept of Reliability and Current Approaches to Assessment

Reliability is traditionally considered to be one of the two most important characteristics of assessment, the other being validity (Cronbach, 1990). In psychometric assessment based on a quantitative tradition, reliability is aimed at establishing consistency among independent evaluations of a performance task, or consistency in performing independent tasks, and so on (Feldt and Brennan, 1989). However, the above discussion suggests that assessment should be qualitative in nature and should take into account the context and needs of individual student and incorporation of these characteristics may make it difficult to achieve reliability in assessment (Shavelson *et al.*, 1993). This is a serious problem since academics, the public and politicians have a particular mindset regarding the importance of reliability, and this mindset tends to resist the “qualitative and contextualised model of learning”. There are reasons for this mindset: as Broadfoot (1995) points out, until recently

the focus of assessment has been on measuring individual intellectual capacity to provide a ladder of opportunity into the expanding industrial economies. In such a high-stakes environment, the main criterion for designing assessment was to make it as objective or reliable as possible.

Wilson (1992) suggests that the question of validity (whether a test measures what it intends to measure) has been subordinated to the overwhelming need for comparability of results. In turn, this preoccupation has tended to lead to a concentration on that which is more reliably measurable, such as knowledge and understanding and a relative neglect of the higher order intellectual skills and attitudes. In addition, other aims are neglected, such as encouraging students to find their own purpose for study, encouraging teachers to make informed instructional decisions consistent with the needs of the individual students, and encouraging students and teachers to collaborate in developing criteria and standards to evaluate their work. These aims are hampered by the practice of using techniques like the same question paper/ same task for every student in order to ensure reliability (Resnick and Resnick, 1991). However, this does not mean that concept of reliability should be abandoned completely. Reliability is still very important as far as selection tests are concerned. Thus Burke and Jessup (1990) argue that reliability is a very important characteristic of a norm-referenced test since it is concerned with comparing one individual with another. In the case of a criterion-referenced test, the intention is very different: here, the purpose is to compare performances with reference to standards or criteria, and not one individual with another, and hence reliability is not as important. Wolf (1995b) makes this more explicit by arguing that if highly specific assessment criteria are provided and the assessments themselves are authentic examples of the 'competencies' in question, reliability ceases to be an issue.

These arguments are relevant to portfolio-based assessment, since the purpose of performance assessment and the assumptions underlying the qualitative approach on which it is based are quite different from those underlying the measurement model of assessment. It can therefore be concluded that the same standards of 'reliability' are not required for performance assessment as are required for norm-referenced testing based on a measurement model.

3.5 Concept of Validity and Current Approaches to Assessment

The importance of validity is not challenged by current approaches to assessment, but there has been a recent shift in the focus on validity. Messick's (1989) review of validity set the tone for a rethinking of this issue. His central point that validity is not a property of the test, but of the interpretations and uses to which test scores are put and their consequences, generated considerable discussion and a good deal of consensus about reliability and validity, specifically in relation to performance assessment.

Perhaps the most important aspect of this debate is that validity is now seen in relation to the theory and nature of learning and teaching and not in relation to the science and technology of measurement. This idea has been summarised by Wolf *et al.* (1991: 63) as follows: “ *In place of ranks, we will want to establish a developmentally ordered series of accomplishments.* ”

This change in purpose makes the task of test construction rather different from the traditional model. What is required now is a test which assesses the growth in the learners' performance in relation to the aims and objectives of the curriculum. According to Resnick and Resnick (1991), if a certain part of the curriculum is not assessed, then most students and most teachers also neglect that part of it. As discussed above, an overemphasis on reliability has meant that most tests omit complex knowledge, skills and attitudes. As a

result, most students and teachers omit these aspects from the teaching-learning process, and the validity of tests as well as teaching learning process are affected adversely.

Moss (1994) suggests a hermeneutic approach to interpreting the performance of students. In this study I have also adopted the approach of 'hermeneutic phenomenology' in attempting to understand the experiences of students regarding portfolio-supported learning and assessment. Further discussions regarding the philosophy of 'hermeneutic phenomenology' appears in Chapter no. 4, which deals with the methodology adopted in this study. Moss (*ibid.*) draws on the pioneering work of Heidegger, Gadamer and Habermas and points out that:

"Although hermeneutics is not a unitary tradition, most hermeneutic philosophers share a holistic and integrative approach to the interpretation of human phenomena that seek to understand the whole in the light of its parts, repeatedly testing interpretations of human phenomena against the available evidences until each of the parts can be accounted for in a coherent interpretation of the whole.....Recently, a number of philosophers of science have suggested that this 'hermeneutic circle' of initial interpretation, validation, and revised interpretation characterises much that occurs in the natural as well as the social sciences." (Moss, *ibid.*:7)

Thus, according to this approach, to assess performance in a particular area of expertise, many different tasks are performed by a student and analysed by the assessor, while in order to come to a conclusion about the abilities of the student, the assessor compares or relates each performance with subsequent or previous performances qualitatively and builds up an opinion about the expertise of the student in totality. However, this requires that the assessor have a knowledge of the contexts in which those tasks were performed by the student, which is possible only if the assessor ensures his/her presence at each performance, or if students describe the contexts of performances. Ideally the assessor should belong to the same system or community so that s/he can appreciate the context properly.

Moss further suggests that portfolios can be prepared and assessed according to the hermeneutic approach. For the preparation of a portfolio, students compile evidence of

their work that they believe best represents the substance and quality of their performances and of the evaluation of these works by others. The content of the portfolio is wholly the choice of the student, but there may be some minimal standardisation as far as its structure is concerned. For example, the portfolio for postgraduate medical students at the Queens' School of Anaesthesia has sections related to different components of the training, so that a trainee covers all the aspects of training. However, what should be filed in those sections is a choice of trainee. The validity of the assessment is not affected by the assessment of different tasks presented in their portfolios by different trainees, since the assessors reach their conclusions not by evaluating each task separately and then aggregating the marks achieved, but by assessing each task in relation to other tasks and in the context of the whole, and continually revising and integrating their opinion about the trainee: at the end, a complete, qualitative picture of the performance emerges. Moreover, students are not awarded marks or grades based on such assessment, but are provided with qualitative feedback of their strengths and weaknesses.

Moss (*ibid.*) also argues that as far as internal consistency or reliability is concerned, a hermeneutic approach treats internal inconsistency in the performances of a student as a normal situation, and efforts are made to determine the reasons for that inconsistency. The search for these reasons may reveal problems in a student's learning.

A hermeneutic approach is based on a post-structuralist view of knowledge, according to which performances and the interpretations of these are not assumed to be consistent or similar across time, context or individuals (Delandshere and Petrosky, 1994). However, this raises a question about what should be treated as valid interpretation, Delandshere and Petrosky, (*ibid.*: 16) cite Smith and Heshusius (1986) as follows:

"Within the qualitative paradigm, 'valid' is a label applied to an interpretation or description with which one agrees. The ultimate basis for such agreement is that the interpreters share, or come to share after an open dialogue and justification, similar values and interests."

Thus, assessors may discuss the reasons for differences in their opinions; even the students can take part in such discussions and use their self-assessment results leading to the development of a shared understanding about the quality of performance. Torrance and Pryor (2001:617) use the term 'divergent assessment' to describe such assessment and argue:

“ Divergent assessment, on the other hand, emphasises the learners' understanding rather than the agenda of the assessor...it is characterised by less detailed planning, where open questioning and tasks are of more relevance. The implications of divergent teacher assessment are that a constructivist view of learning is adopted, with an intention to teach in the zone of proximal development (Vygotsky, 1986). As a result assessment is seen as accomplished jointly by the teacher and the student, and oriented more to future development rather than measurement of past or current achievement.”

In portfolio-based learning and assessment, such discussions are valued to the extent that students are advised to show and discuss their portfolios with as many assessors as possible, including their peers. Freidus (1997) found that once students develop trust in the process of portfolio preparation and in each other, a palpable energy is generated which provides support to the efforts of each individual.

A hermeneutic approach therefore prefers consensus over consistency. This is important because, in most cases, consistency is achieved by limiting the scope of performance within rigid boundaries and restricting the freedom of expression and action of assessors as well as students. Actually, the notion of consistency is based on the belief that if tests and assessment criteria are well-defined, objectivity in assessment can be achieved (Ebel, 1972). However, according to Phillips (1990) objectivity is no guarantor of truth. He further argues that a community of inquirers should behave as a critical community, where differences in opinions are accepted as an important condition for the process of inquiry.

Moreover, the question is no longer “Does a test measure what it is supposed to measure?” but “Does it do what it is supposed to do?” (Shepard, 1993). Thus, assessment becomes contextualised and focused on learning in such a way that although the accuracy, coverage,

or representativeness of the teaching goals in the test sample is important, so too are fairness and consequences (Maguire *et al.*, 1994).

Cronbach (1988:3) suggests that tests may have social consequences for individuals as well as for society and hence not only should the validity and reliability of tests be analysed but also tests should not have any adverse consequences on the attitudes of trainees towards the learning process.

Messick (1989) expresses similar views, and argues that, similar to content, criterion and construct validity, there should be a concept of 'consequential validity'. Linn *et al.* (1991) also suggest that validation criteria should be more extensive than those used previously for technical analysis. They propose eight criteria for complex, performance-based assessments such as writing portfolios, and the first of these criteria is that the consequences of the test on all stakeholders should be considered.

Two main points emerge from the above discussions: first, assessment in professional development should also cater for higher level skills and should promote autonomy and motivation in learning. Second, this is possible only when assessment methods are qualitative in nature, based on constructivist theories of learning, and are able to assess situated or contextual knowledge. In the light of this analysis, the main purpose of this study is to explore that how these current concepts and theories of assessment can be used to develop the qualities of professionalism in medical postgraduate students, especially with the help of portfolios. Experiences with the use of portfolios in professional education and their utility with reference to current approaches to assessment are discussed later in this chapter. Before dealing with the portfolio, the merits and limitations of other methods being used for the assessment of professional behaviour in medical education are discussed in the following paragraphs.

3.6 Assessment of Professional Behaviour in Medical Education

As discussed in the previous chapter, the literature suggests that postgraduate medical students need to learn qualities of professionalism, since they are generally able to learn clinical skills and technical knowledge but not the desired ability to continuously develop themselves professionally. Cruess and Cruess (1997) suggest that professionalism must be taught to medical students, while Arnold *et al.* (1998) point out that if the focus of learning is to be shifted to these qualities of professionalism, then techniques for the assessment of professional behaviour should be developed and introduced into the curriculum. However, a survey of student assessment in medical schools in the USA (Brian *et al.*, 2001) indicates that although a broad array of assessment methods is being implemented throughout the curriculum, more traditional methods, such as MCQs, remain central to student assessment. Snadden (1999:479) argues that present assessment methods are unable to assess complex abilities such as the professional behaviour of medical students, since we measure only what can be measured reliably and end up measuring the irrelevant because it is easier.

As a result of these concerns, various methods based on performance in real-life situations, or on performance in created situations, are being attempted in order to measure professional behaviour. One of the most commonly used techniques for this purpose is to employ standardised patients (SP) and use them in objective structured clinical examinations (OSCE). However, Norman *et al.* (1993) reported that with SP assessment, the main drawback is that of artificiality, as during an examination students may behave as they should behave, rather than as they would behave in a real-life situation. Van der Vleuten and Swanson (1990) point out that another limitation to the use of OSCEs and SPs is that prolonged testing is necessary in order to achieve an acceptable level of reliability.

OSCE was invented in the 1970s in order to increase reliability, after a concern was expressed in the 1960s about traditional clinical tests that had a low reliability (van der

Vleuten *et al.*, 1994:111). Hence the genesis of OSCE was to increase standardisation and objectivity. Similarly, van Luijk *et al.* (1990) report that a performance-based test was introduced to improve clinical competence, and it was found that students continued to achieve good scores in this performance test as well, even though they had only a superficial understanding of the skills they demonstrated. Further exploration revealed that many students had memorised the checklists used by examiners in previous years. In a way, this is similar to the technique of ‘cramming without understanding’ used to improve performance in pen-and-paper tests. Petrusa *et al.* (1990) also report that OSCE scores for a group of postgraduate students in internal medicine did not correlate adequately with overall faculty ratings of clinical performance.

These studies show that OSCE and SPs cannot replace real-life situations or create them in a holistic way as far as the assessment of professional qualities and habits is concerned. In a similar vein, Friedman Ben David (2000) argues that compartmentalised exercises like OSCE are adequate only for the early stages of the undergraduate curriculum. In order to address the idea that ‘the sum is greater than parts’, more fully integrated models of assessment are needed. However, OSCE, along with SPs, has served the purpose of identifying weaknesses in clinical skills in order to provide feedback to students, as well as of making it possible to certify these skills more reliably and with more discrimination. Although SPs and OSCE require more resources, these techniques will continue to have their place in the assessment of medical students because they are a good compromise (Joorabchi, 1991).

To overcome the problems associated with OSCE and SPs, a systematic observation of the habitual performance of students in real clinical settings over a long period of time is also used. For example, Wooliscroft *et al.* (1994) used questionnaires to collect information about the doctor-patient relationship from senior doctors, patients, nurses and programme

supervisors. They found that information from 20 to 50 faculty members or senior doctors for each student was necessary in order to assess this relationship reliably. Moreover, this study highlights the fact that the trait of patient-doctor relationship cannot be assumed to be stable since it also depends on context. The study also reveals that different assessors focus on different aspects of behaviour and interpret the same behaviour in different ways. Newble *et al.* (1994:75) argue that:

“.....clerkship ratings provided by faculty may appear to have a high index of fidelity, but may fail to assess clinical tasks involving history taking and physical examination simply because it is rare for students to be observed directly.”

Similarly, it was found that data from at least 50 patients are required to judge the doctor's behaviour with them. However, the study also reports that data from 10 to 20 nurses are sufficient in order to make a reliable assessment of doctors' behaviour with patients. Yet there was a problem with correlating the ratings of doctors from different groups, namely a group of faculty, a group of nurses and a group of patients. Thus, this study shows that it is neither feasible to collect data from so many sources nor are data so collected sound enough to make judgements with confidence.

Rhoton (1989, 1994) and Brennan and Norman (1997) experimented with encounter cards to observe behaviour on a regular basis to compensate for the drawbacks of one-off questionnaires as used in the above study. They found that regular reporting over a long period by different judges results in a fairly reliable and valid assessment of knowledge, skills and professional behaviour. These experiences have led to the design of comprehensive assessment schemes such as in-training assessment, or ITA (Feletti *et al.*, 1994). However, Rhoton (1994) realised that faculty were much more cautious about giving negative comments about professional behaviour than about giving negative comments about clinical skills. The study revealed that only around 1% of negative comments was related to unprofessional behaviour. Thus ITA has been found effective in

assessing clinical skills but not in assessing attitudes and behaviour. Stern (1998) pointed out that one reason for this is that assessors are generally reluctant to label an individual as unprofessional for actions that appear to be relatively minor. He further suggests that this problem does not lie with the assessors but in the traditional approach to evaluating professionalism in an abstract, implicit and unsystematic way. It seems that there is some common understanding that if unprofessional behaviour is noticed, this should be communicated to the student in an indirect, mild way. Thus, assessment of professional behaviour is limited and ineffective. Burack (1999) discovered that providing feedback indirectly results in learners believing that their behaviour is within permissible limits. Phelan (1993) highlights the fact that many students who behave unprofessionally are not being identified in the current system and are being promoted academically on the sole basis of adequate performance in tests of knowledge and skills.

Apart from faculty, nurses and patients, peers are also considered as an alternative resource for the assessment of professional behaviour because of the regular, frequent and intimate contact they have with each other in clinical as well as non-clinical settings. However, there are contradictory findings concerning peer assessment. Thomas *et al.* (1999) found that peers are able to judge each other well in interpersonal skills, while Arnold *et al.* (1981) report that peers cannot discriminate between different dimensions of professionalism. In their study, Arnold *et al.* found very high internal consistency in scores across different dimensions of professionalism. This indicates that the assessment of performance in one dimension was influenced by the assessment of performance in other dimensions of professionalism. As with assessment by faculty, nurses and patients, assessment by peers also requires high numbers of ratings to achieve stability in scores (Ramsey *et al.*, 1996). Thus, although peer assessment has some potential for the assessment of professional behaviour, it also has its limitations. In fact, if students are to be

engaged in assessing each other they should be trained in the principles of assessment and to be informed what knowledge, skills and behaviour are to be assessed in their peers and criteria for assessing those parameters.

On the basis of similar findings, Van Luijk *et al.* (2000) warn that the assessment of professional behaviour is a very sensitive and difficult task, since a valid assessment of professional behaviour requires regular observation over a long period by many judges, including senior doctors, paramedical staff and peers. Ginsburg *et al.* (2000) suggest that these problems in assessing professional behaviour arise from traditional methods of assessment. These methods do not achieve their purpose, since they attempt to measure professionalism by breaking it down into personality traits such as altruism, honesty, duty and sincerity. Rezler *et al.* (1992) point out that the assumption that behaviour depends only on personality traits which are constant characteristics of the individual is not true, since, in most cases, professional behaviour also depends on the specific context of a situation. Moreover, assessment methods that attempt to measure personality traits result in discussions about the person rather than about his or her professional behaviour. On the other hand, any attempt to measure professional behaviour in a particular context is easier, less time-consuming and more valid, because it will help in giving feedback to the students to enable them to improve. Moreover, such feedback will be less offensive and may be owned by the students, since it is about their behaviour in a particular context and not about their personality (Ginsburg *et al.*, 2000).

Moreover, Ginsburg *et al.* (*ibid.*: 56) suggest that, apart from the context, conflicts of professional values also affect the behaviour of the professional. In their words:

“Another element of evaluating professionalism involves the process of resolving the conflict. The ultimate choice an individual makes, manifested as the behaviour witnessed, does not tell us how he or she arrived at that decision. We know nothing of whether the student recognised the professional ‘values’ that were in conflict or why the student chose to act in that particular way. So, while focusing on behaviours rather than personality or character traits is important, we must also attempt to understand the process that lead to

that behaviour. Thus, if we do not include conflict, context and the process of resolution in our evaluation methods, we might not be able to conduct the most reliable, valid and appropriate evaluation of these behaviours.”

Thus, according to Ginsburg *et al.* (*ibid.*), a proper understanding of professional behaviour in addition to ‘context’ requires consideration of two other aspects, namely, ‘conflict’ and the ‘process of resolution’ of that conflict. However, the key question remains that how we can know the ‘conflict’ going on in the mind of student and the ‘process’ in which he or she was involved in resolving that conflict. One way to know this is to directly ask the concerned student. In a study related to postgraduate students by Kolm and Verhulst (1987), it was found that self-assessment was more sensitive to specific areas of strength and weakness while assessment by the supervisor tended to be more global in nature. Kabir, the 15th century Indian philosopher and Sufi saint insisted that nobody could accurately analyse a person’s weaknesses in attitudes or behaviour other than that person him or herself, since only the person concerned is fully aware of the context and the reasons for that particular behaviour. In one of his most famous couplets he sings:

*“When I started my journey to search for weaknesses in others I found none,
But when I searched my own heart for those weaknesses, I found many.”* (Kabir)

Thus, certain aspects of behaviour and some decisions taken by a professional in certain situations can be better analysed by the professional him/herself. Self-assessment is therefore being applied in an attempt to assess professionalism. However, the reasons for using self-assessment are considerably different from those for using assessment by faculty, nurses, peers and patients. As discussed in the previous chapter, autonomy in learning and motivation to learn are considered primary requirements for professional growth. The discussions contained in this chapter suggest that, conceptually at least, self-assessment is considered an effective technique for promoting autonomy and motivation in learning. Another reason for using this technique is that professionals do not have the

privilege of feedback from supervisors throughout their careers, and hence if they want to learn from their own experiences, they should also learn to reflect on or self-assess their performances (Schon, 1983, Eraut, 1994). However, Argyis and Schon (1974) argue that many people have two types of theories: 'espoused theories' and 'theories-in-use', and hence self-assessment in isolation may sometimes be misleading. It might therefore be argued that, to avoid self-fulfilling prophecies, self-assessment should be shared with persons more or equally knowledgeable and who are also acquainted with the context (Wade and Yarbrough, 1996).

In this scenario a portfolio is being considered as a tool for helping in self-assessment, since it provides scope for writing down experiences, reflecting on those experiences and sharing that reflections with others (Borko *et al.*, 1997; Fung *et al.*, 2000; Wolf *et al.*, 1995). Moreover, it also reveals or highlights differences between self-perception and external information about one's own abilities (Haertel, 1990). On the basis of the above theories, self-assessment is being introduced in the medical education curriculum with an aim of drawing students' attention to their own behavioural skills, professional values, conflicts involved and the processes they follow to resolve those conflicts. A portfolio is one of the most commonly used tools for the purpose (Lonka *et al.*, 2001; Snadden and Thomas, 1998). Forker and McDonald (1996) suggest that a portfolio can be used to assess a range of abilities, such as critical thinking, problem solving and clinical decision making in the health care system. Seldin (1997) suggest that portfolios are suitable for developing the habit of self-assessment. And, in theory at least, it is also possible to encourage autonomy and motivation if there is a 'critical conversation' going on between student and teacher on an equal footing during the feedback process.

As pointed out earlier different royal colleges and medical schools have attempted to introduce portfolios and other self-assessment techniques in different ways and the focuses

of these are also different and varied (Challis, 2000). Since the purpose of this doctoral research is to study the effectiveness of portfolio-based assessment (PBA), the following sections evaluate how PBA relates to current approaches to assessment and reviews recent experience with the approach.

3.7 Portfolio-Based Assessment (PBA) in the Light of the above-mentioned Approaches and Concerns

Many arguments have been published regarding the usefulness of PBA for enhancing learning in depth and breadth, as discussed in the previous chapter. This section evaluates whether a portfolio can improve an existing assessment system in the light of current approaches to assessment.

(i) It Assesses Students with Reference to the Standards set by the Curriculum

Portfolios are not intended to compare students' performances with each other; they are best suited for comparing the performance of students with the desired objectives of the educational programme. In a sense, the portfolio has its origins in CRT rather than in NRT. Wills (1996) suggests that portfolio-based assessment extends the basis of assessment beyond the 'conventional' or 'multiple-choice category' to the alternative assessment of active learning based on clearly defined standards. Similarly, Porter and Cleland (1995: 23) argue that:

"when portfolio criteria are linked to the curriculum and give students clear expectations of what is required, they are an effective tool for helping students see gaps in their learning, determine strategies that support their learning, celebrate risk taking and inquiry, set goals for future experiences, and see changes and development over time."

Portfolios are therefore based on standards and are used to identify the gap between standards and performances. What is more important is that students can set these goals or standards themselves and hence the process of portfolio-based assessment can lead to

'ipsative' assessment. Broadfoot (1986) also supports the potential of PBA for ipsative assessment. She argues that it provides scope for a democratic relationship between students and teachers, which allows students to choose their own curriculum path and decide standards of achievement by means of frequent discussions with teachers. Moreover, students develop the habit of comparing their performance with their own previous performances and not with others' performances.

(ii) It is Qualitative in Nature

Portfolio-based assessment is inherently qualitative, since it requires the assessment of the whole performance, and the outcome of the assessment is in the form of qualitative comments about performance rather than in the form of quantitative markings or grades based on the assessment of distinct, discrete components of the performance. According to Borthwick (1995), the main attraction of portfolio assessment lies in its response to the integrated curriculum: as an assessment tool, the portfolio reflects both the breadth of study envisaged by the curriculum and the quality of work that students are expected to produce.

Mansell (1986) argues that the strength of a profile or record of achievement (ROA) lies in its qualitative nature. He agrees that basic core skills can be assessed by conventional quantitative methods, because everyone is expected to acquire them. However, he explains that the range of experience and the tasks attempted by a student/trainee may well be unique to that person (e.g., the job-specific skills developed through work experience). And the application of these experiences and tasks in a real-life situation are more important, but difficult to assess by conventional methods, whereas records of achievements and profiling make it possible to assess these more accurately, due to their qualitative nature.

Similar views are expressed by Engel (1994), who argues that a portfolio takes into account constructivist theories of learning by allowing learners to describe the learning of experiences from their own perspectives. In his survey of strategies adopted for

professional development in an experience-based education programme, Simmons (1995) found that, in most cases, a constructivist philosophy underpins the teaching-learning and assessment processes. A portfolio is so flexible that it even allows students to document their creativity and wide-ranging abilities (Bloom and Bacon, 1995). This is possible because portfolio-based assessment does not attempt to quantify or compare the performances of different individuals. Bloom and Backon further argue that, because of these characteristics, portfolio assessment is a method which is consistent with a professional development view, rather than with a technical knowledge transfer view of teaching. These findings indicate that a qualitative assessment tool, such as a portfolio, may prove useful in the work-based training of postgraduate medical students.

(iii) Can Assess Situated knowledge

A portfolio allows a description of the context in which learning has taken place and of the knowledge used and created in that context; this is not possible in the case of traditional assessment techniques, such as question papers, where the focus of assessment is on generalised knowledge rather than on knowledge applicable to specific situations (Cole, 1992). According to Geltner (*ibid.*:3),

".....it accords with one of the key principles of adult learning- the importance of drawing on students' lived experience and providing opportunities for independence, self direction and personal control of learning ----- further, since portfolio assessment is grounded in practice, it is more authentically related to the complexity of real life. By being 'situated' or 'contextualised' in this way, it more accurately measures leadership behaviours and activities that take place in actual settings."

Thus, according to Geltner, it is also possible to assess professional skills, such as leadership qualities and other behavioural qualities, with the help of a portfolio.

Since students/trainees are supposed to collect artefacts relating to their performance in real-life situations or to account for their experiences by means of reflection on those experiences, the portfolio provides an opportunity to assess the students' performance in real-life settings or in a particular context or situation. It therefore becomes possible to ascertain the applicability of the knowledge acquired by the student to real-life situations.

A study by Ohlhausen and Ford (1990) supports this view, since it revealed that portfolios could help in recording changes taking place in practice and could demonstrate the professionals' application of issues and ideas encountered during that practice. Friedman Ben David *et al.* (2001:535) explain the importance of the portfolio in this regard:

"The Portfolio is an attempt to counteract the limitations of a reductionist approach to assessment. It facilitates assessment of integrated and complex abilities and takes account of the level and context of learning. It provides an assessment solution for a curriculum that designs learning towards broad professional outcomes."

Hypki, (1994) suggests that because of this feature, a portfolio is more useful for assessing performance in adult education, since adults are able to describe experiences situated in the context of their work and reflect upon them for the purposes of self-assessment.

(iv) It has the Potential to Foster 'Autonomy' and 'Motivation'

Ecclestone (2000b: 153) identified the following factors in assessment that are responsible for the development of 'critical autonomy' in students:

"Constructive and self-regulating processes are integral where learners can 'reflect on progress themselves to climb to the "high ground" from where they can survey their own knowledge and process of learning'Assessment focuses on evaluation and critical reflection immersed deeply in engagement with the dilemmas and complexities of a subject discipline or workplace issue. Assessors and learners engage in oral and written 'Critical Conversations' and learners have to assess their own work and be able to relate its quality to that of peers and immediate supervisors (scaffolding learning)".

Analysis of the above paragraph reveals that the following factors are responsible for the promotion of critical autonomy:

- (i) constructive and self-regulating processes;
- (ii) reflection by the learner on the complexities of a subject discipline or workplace issue;
- (iii) critical conversations between the assessors and the learners;
- (iv) comparison of one's own work with that of peers and immediate superiors.

It is worth mentioning here that the process of preparing portfolios requires all of the above four factors and hence it can be inferred that portfolio-based assessment has the potential to promote the critical autonomy. Imel, (1993) points out that if students start taking

responsibility for self-assessment, then this in itself is an indicator of enhanced autonomy. However, it does not necessarily mean that it will lead to critical autonomy, as in most cases the drive for autonomy is restricted to procedural or technical forms of autonomy (Ecclestone, 2002).

As for as motivation is concerned, Evans (1986) reported that the UK's then DES (Department of Education and Science) policy statement listed four 'purposes of records of achievement', and one of these is improving pupil motivation. And, based on his study of the experiences of teachers, Evans found that the use of profiles does increase motivation. Dutt-Doner and Gilman (1998:161) also found that portfolio-based assessment resulted in boosting students' confidence, as they could overcome their nervousness and apprehensions and start talking about their strengths and weaknesses and concerns about their profession. Here, an increase in confidence or the overcoming of nervousness and apprehension may be considered as indicators of enhanced motivation and at least technical autonomy. In his doctoral research study, Yueh (1997) found that there was a relationship between the quality of engineering students' performances on portfolio-based assessment and their use of self-regulated learning strategies. He inferred that portfolio-based assessment indicates the level of autonomy present in students and thus can help in developing their autonomy, although Yueh does not clarify which type of autonomy he is considering. Brown (1997) expresses similar views and suggests that the portfolio facilitates motivation and autonomy mainly because it involves students in the assessment process. Blake *et al.* (1995) also highlight the fact that portfolio-based assessment promotes motivation and autonomy in learning which in turn lead to professional growth. However, they suggest that the criteria for preparing a portfolio should be conveyed to students very clearly and that criteria should focus on evidence of creativity, planning and organisational skills, professional growth and collaboration. They warn that if the purpose of and criteria for the development of a portfolio are not clear to students, it may become a clumsy collection of artefacts that bear little or no relation to reflection and provide no evidence of growth in autonomy and motivation. Rearick (1997) used portfolios as part of a

professional development plan for pre-service teachers and found that a portfolio could illustrate students' willingness and ability to use reflection as a springboard for learning. These findings suggest that the portfolio development process can foster autonomy and motivation, while the assessment of a portfolio can reveal growth in autonomy and motivation over time. However, these findings are not explicit regarding the type of autonomy which is fostered by the portfolio.

(v) It is Student-Centred, Individualised and works as a Mirror

" The fundamental principle of 'authentic assessment' holds that students should demonstrate rather than be required to tell or be questioned about what they know and can do------. A solid assessment programme consistently assists, as well as requires students to take responsibility for record keeping and metacognition and reflection while learning." (Cole et al., 1995: 21)

In line with this, portfolios offer the additional benefit of involving students in the assessment process. Portfolio assessment is not teacher/trainer-driven, as is common in conventional assessments. In keeping with a trend towards student-centred education, portfolio-based assessment is a shared responsibility. It requires the involvement of students in establishing the assessment standards, criteria and content of the portfolio, as argued by Geltner (*ibid.*:2):

"Through the process of building of a portfolio, the student operates as an active agent of the process, not the receiver, as a participant in the process, rather than an object of such a process. Lodging responsibility for selection and evaluation of worth of such evidence with the students places ownership of the development of professional judgement and expertise with the learner."

Caine and Caine (1990:67) express similar views:

"Portfolio assessment motivates learning when it engages students in active learning and gives students some control over what and how they learn and how their performance will be assessed. A recognised value of performance assessment is that it can accommodate the diverse learning patterns of all students and enable each of them to realise and experience success."

These findings indicate that a portfolio is a highly flexible tool for assessment and that control and ownership of it rest with the students and, because of this, it can cater for individual differences. Moreover the process of developing a portfolio requires self-

reflection and self-assessment. Proper reflection reveals the strengths and weaknesses of an individual as a professional. Wolf (1989) also found that when students maintain the portfolio they learn to assess their work and gain insights into their own strengths and weaknesses. In this way, the portfolio works as a mirror, which shows the true image of the individual to him/herself. In the words of Diez (1994:9),

"The process of looking at one's development through a portfolio process functions like a literal mirror-when one sees own image or performance -the literal reflection sparks internal reflection."

The image shown by this 'mirror' is accepted and owned by a student since this mirror is his/her own creation and there is no mediator. This is probably one of the most important potential strengths of PLSA since, in conventional assessment systems, most of the time students do not fully accept or own feedback provided by their teachers about their attitudes because of their view that their teachers are prejudiced towards them.

(vi) It Assesses Incremental Change in Learning and Works as a Map of Growth

Wolf *et al.* (1991) suggest that one-off assessment must be replaced by rigorous evidence of educational progress. They further suggest that for this purpose, teachers must think developmentally, and large-scale accomplishment must be described by collecting longitudinal data that follow the growth of a student. The portfolio process provides such an opportunity for students to document their professional behaviour over an extended time span in any number of ways. Used in this way, the portfolio acquires importance as an instrument of recording development over time.

"It is precisely this development perspective that enhances the value of the formative portfolio assessment process; unlike a single test score, which represents one piece of information at one particular moment of time, this approach is a continuous, longitudinal, dynamic process, offering students an opportunity to ponder what was and to ponder growth over time. It encourages the students to view learning as an incrementally staged process, with concrete benchmarks for their own progress..... and can serve the psychological needs of adult learners by providing physical evidence of their own growth."
(Geltner, *ibid.*:2)

Diez (*ibid.*) reports similar findings: that a portfolio works as a map of the growth of the professional over a period of time. Collins (1991) and Ballard (1992) report similar experiences in studies conducted by them. According to them, a portfolio maintains a cumulative record of progress and it is used successfully by students to reflect on their learning and growth over a period of time. Borko *et al.* (1997) also found that the portfolio provides a broader perspective on learning and experiences over a period of time, yet allows reflection on specific experiences in detail for deeper understanding, self-feedback and learning.

The discussion above suggests that, in the case of micro-level reflection or isolated performances, the portfolio works as a mirror, while in the case of a macro-level reflection on a series of performances over a period of time, it works as a map of professional growth or development.

3.8 Portfolio and the Concepts of Reliability and Validity

If a portfolio is used for formative assessment, namely for improving learning, then the traditional notion of reliability becomes irrelevant (McLaughlin, 1998). Yet concerns have been raised about the reliability of portfolios, especially where they are used for summative assessment or certification purposes (Bateson, 1994). Pangaro (2000) highlights the need to develop mechanisms for improving the reliability of qualitative or descriptive evaluation so that it can also be used more authentically for summative purposes. Naizer (1997), in his study of portfolios in pre-service teacher education, found that students' ratings based on portfolios can be reliable, and these compare acceptably with those given by instructors based on observations of students' performances. However, Pitts *et al.* (1999) in their study of the portfolio assessment of general practitioner trainees, found that the concept of reliability cannot be applied to portfolio assessment in a traditional sense and hence they suggest that it should not be used for summative purposes. However, they propose that reliability may be improved by providing a structure to the portfolio instead of allowing it to be completely free-range, albeit at some cost to the freedom and autonomy of the learners. In another study, Pitts *et al.* (2001) offered students a guidance framework for

providing evidence, in order to increase reliability. All portfolios prepared based on this framework were scored by a panel of eight assessors according to six criteria. The scores awarded by the assessors were analysed statistically for inter-rater and intra-rater reliability. They found the following:

“The reliability of individual assessors’ judgement (i.e. their consistency) was moderate, but inter-rater reliability did not reach a level that could support making a safe summative judgement.” (Pitts *et al.*, 2001: 351).

Similarly, Davis *et al.* (2001) in order to ascertain the reliability of portfolio assessment, calculated correlation with other methods of assessment and found that correlation is low to moderate. Thus the concept of reliability may not be applied to portfolios.

As far as validity is concerned, Naizer (*ibid.*) reports that performance-portfolios demonstrate pre-service teachers’ ability to plan, design, execute, and assess lessons and that they facilitate pre-service teachers’ reflection on their performance and the result of their instruction. If the purpose of assessment is to assess these abilities, then a portfolio is able to do it and in this sense it is a valid technique. Tillema and Smith (2000) report based on a study of the effectiveness of feedback provided to students on their performance in work-related areas that students found such feedback very effective and useful for improving their performance. Similarly, Davis *et al.* (*ibid.*:363), in a study on the use of portfolios for assessing final year, medical undergraduate students, found that examiners considered a portfolio as a more valid tool. They argue that:

“Portfolio assessment has the potential for assessing a range of outcomes not easily assessed by other methods; for example, attitudes, personal attributes such as diligence in building the portfolio, and aptitude for self-development.”

Thus it can be inferred that a portfolio also has consequential validity (Boud, 1995), since it results in an improvement of performance. However, Callahan (2001:197) in her study found that the consequences of using a portfolio for summative purposes are not good. She argues that it created ethical conflict in students and teachers:

“...they wanted to do a responsible, professional job of scoring their students’ portfolios and saw no satisfactory way to accomplish this task in a manner that balanced justice, care and honesty. The teachers’ individual and collective ethical conflicts indicate that

they were not just performing a mechanical function, but were involved in a complex process of interpretation and decision making that went beyond learning to follow the written guidelines they had been given."

There are more studies (Gearhart and Herman, 1998; Murphy *et al.*, 1997) which suggest that when a portfolio is used as a mandatory tool for summative purposes, it has negative consequences for teachers and students. It can be inferred from these studies that the portfolio may not have consequential validity if used for summative purposes.

On the basis of such experiences, Pitts *et al.* (*ibid.*) refer to Lincoln and Guba (1985) and argue that portfolio-based assessment is akin to naturalistic or qualitative enquiry. Hence, they suggest that for portfolio-based assessment, the concepts of reliability and validity should be replaced by concepts of credibility, dependability, transferability and confirmability. Simosko (1991) and Mathers *et al.* (*ibid.*) suggest that in place of reliability and validity, the quality of portfolio-based assessment may be ensured by evaluating portfolios against the two main criteria of relevancy and sufficiency. Here, relevancy means that the evidence presented is appropriate for the achievement of the intended objectives, while sufficiency indicates that the evidence is sufficient for assessors to infer that learning has occurred.

3.9 Concerns and Confusions about PBA

As discussed in the previous chapter, despite the merits of the portfolio as a tool to support self-assessment, there are some problems at the level of implementation, as well as some concerns raised by students and teachers about it as an assessment tool (Ohlhausen, 1995). The main concerns and issues to do with the portfolio as a tool to support learning and assessment are discussed below.

(i) For Learning or for Assessment

The prevailing confusion is over the utility of a portfolio. Both teachers and students are uncertain whether it is a tool to support learning alone, or to support assessment alone or to support both. Snadden (1999) point outs that in medical education, the portfolio is being seen as a tool for supporting both learning and assessment. Mathers *et al.* (*ibid.*) report that portfolios are an effective and efficient method of supporting continuous medical

education, while Pitts *et al.* (*ibid.*) used it as an assessment tool. Friedman Ben David (*ibid.*) suggests that medical education has reached a stage where ‘learning through assessment’ rather than ‘assessment of learning’ is needed, and self-assessment methods such as the portfolio provide an opportunity for assessment to become a learning experience. However, Borko *et al.* (1997) found in their study that teachers valued the use of portfolio for enhancement of learning, while students wanted to use it to prove their worth and obtain employment. This resulted in students selecting types of experiences and presenting them in a manner which was quite different from the expectations of the teachers. Grading of portfolios created another problem: many students expressed a tension between creating a document for their own learning and benefit and in developing it in order to showcase their achievement and acquire high grades. Moreover, Athanases (1994) points out that the focus of research regarding portfolios has been on their utility and effectiveness in supporting assessment rather than in supporting learning. It was therefore decided that this research study would attempt to evaluate the effectiveness of the portfolio in both aspects of education: i.e., learning and assessment in the context of the training of SpRs. Similarly Dutt-Doner and Gilman (*ibid*) found that little research has been conducted to understand the feelings of students about the use of the portfolio as an educational tool. The main focus of this research study is thus on attempting to gain an understanding of the attitudes of SpRs towards portfolios.

(ii) For Summative or for Formative purpose

Another major issue that affects the way portfolios are treated by students is the purpose for which they are being used. Synder *et al.* (1998) suggest that efforts to combine the dual purposes of a portfolio: namely, summative and formative assessment, may result in a tension which may undermine its basic purpose. They argue that students are not the only group that feels this tension (of whether to use portfolio to receive feedback on their performance or in order to showcase their best achievements), but that teachers are also subjected to same tension. This is true not only for portfolios but also for other techniques

of assessment. On the basis of the findings of their study, Ecclestone and Swann (1999a: 387) argue that reforms to bring the focus of assessment onto its formative function are still not able fully to achieve their purpose. In their words:

“.....much of it appears to overlook the complexities of inducting and socialising staff and students into an assessment community. The findings of the research reported in this paper suggest that efforts to involve students more actively in assessment will need to go beyond small-scale technical changes initiated by motivated individuals.....Most importantly, the rhetoric of empowering students is belied by complex tensions between the formative and summative roles of lecturers, who must act both as gatekeepers and facilitators of formal learning.”

The purpose of a portfolio also determines whether the structure and content of the portfolio should be personalised or standardised. Those who see a portfolio basically as an individual document to be used for learning and formative assessment argue that full flexibility in content and structure should be provided to students (Pitts *et al.*, 2001). In contrast, those who are willing to use portfolios for summative assessment want structure and content to be standardised so that the performance of students can be compared reliably. Parboosingh (1996) suggests that although a portfolio provides a structure to the highly contextual and idiosyncratic nature of the typical professional performance and human reflection on that performance, too-structured an approach may diminish its strength. Pitts *et al. (ibid.)* therefore insist that maximum flexibility should be provided to students as far as the content and structure of a portfolio is concerned. They further argue that for this reason, and as a result of its qualitative nature, it is not suitable for summative assessment.

However, Challis (2001) suggests that a portfolio may be used to assess summatively those dimensions of professional learning which are not better assessed by other methods. Ten Cate and De Haes (2000) report that summative assessment in the affective domain is a neglected area in medical education, and evidence-based techniques may be employed to assess summatively students' communication skills, teamwork spirit and other attitudes. Friedman Ben David *et al. (2001)* point out that the portfolio is an ideal method for summatively assessing the 'reflective ability' of professionals, which is a key component

of medical professionalism (Wear, 1997; Lundberg, 1991). Davis *et al.* (2001) also report successful implementation of portfolio-based assessment in the Dundee undergraduate medical programme for summatively assessing curriculum outcomes not easily assessed by other methods. Although portfolio-based assessment has been introduced at the QSA mainly to inculcate habits of self-assessment and to support informal formative assessment, it is also being used to assist the RITA, which is a summative assessment. In this research, therefore, the effectiveness of a portfolio as a tool for both summative and formative assessment is studied.

(iii) Process or Product

According to Meyer and Tusin (1999), the most important concern regarding the portfolio is whether learners perceive it as a process or as a product. They argue that if learners are performance-oriented, they will see the portfolio as a product and will focus more on how outcomes reflect their ability. In contrast, mastery-oriented learners will focus on learning new skills, understanding practice and learning from mistakes, and such learners will see the portfolio as 'work in progress'. According to Santora (1996), the process of portfolio preparation is more important because it has an educational value and encourages transformative introspection. In contrast, the portfolio as an end product is merely a representation of the journey that one makes during the learning process. Barton and Collins (1993) noted that the first and most significant act in portfolio preparation is the decision made by the learner about its purpose. Nonetheless, other studies indicate that assessors focus on the portfolio as a product, while students value the process of preparing it and would like to share their experiences of going through this process (Darling, 2001:108). Darling reports on the experiences of pre-service student teachers of using portfolio-based assessment:

"While evaluators inevitably focus on the achievement itself, portfolio as product, many students find that the process of creating portfolios embodies the growing pains they experienced through a programme. It is the process, not the product, that may reveal most about who they are as emerging teachers."

Whether teachers and students view a portfolio as a product or a process might be an important influence on how they conceptualise and use portfolios, and hence they need to be informed about this aspect before the introduction of portfolios in a particular assessment system.

(iv) Individual or Public Document

Ownership of the portfolio: that is, whether it rests with the students or is a document to be shared, is a common source of confusion, Borko *et al.* (1997:355) report that:

“...[this issue] however, posed dilemmas for which there were no easy resolutions. One dilemma related to concerns about ownership. Instructors.... wanted students to have ownership of their portfolios. However, several characteristics of the assignment created tensions that made this goal difficult to achieve.”

Ownership may be defined by according to two criteria: namely, who decides the content and structure of the portfolio and whether it is a private or a public document. As far as the first criterion is concerned, this basically depends on the purpose of a portfolio in formative and summative assessment, while there is debate about the second criterion. Stanley (2001) suggests that the process of preparation and its use should be highly personal, but if the individual feels comfortable sharing it with his/her peers and mentors then this should be encouraged. He further suggests that learners can receive help from their peers and mentors in developing their portfolios. This means that the development of a portfolio can be either an individual or a collaborative process, depending upon the relationship of the learner with his/her peers and mentors. According to Geltner (*ibid.*) and Dutt-Doner and Gilman (*ibid.*), the key advantage of the portfolio is that it helps in establishing a fruitful dialogue between learner and peers which provides content and context-specific analysis and synthesis of the complex world of the profession. Levine (1990) also reports from his research study that professionals should engage in discussions about their portfolio if they want to learn more from their experiences. Shulman (1992) also suggests that sharing a portfolio with peers generates cross-talk leading to a detailed conversation which helps students to learn from each others' experiences. Thus the literature suggests that the portfolio is basically an individual document, but that in order to harness its full potential,

it is better if it is shared with peers and supervisors. The views of the trainees at the QSA on the issue of ownership of the portfolio will therefore be explored.

(v) Effective Implementation of Portfolio Requires Training and Time

Imel (*ibid.*) highlights the fact that portfolio-based assessment also involves assessing attitudes and behaviour, and so providing feedback is a complex, sensitive process, especially when students demonstrate trust in their teachers and reveal their weaknesses. She therefore suggests that assessors should be well-educated and trained in assessing portfolios to avoid undesired consequences.

Another major concern involves the beliefs and attitudes of teachers regarding portfolios: a study by Ford and Ohlhausen (1991) suggests that these are influenced positively if the teachers themselves are asked to develop portfolios and use them for self-assessment. Fisher (1993) found in her study that the philosophy of portfolio-based assessment is quite different from that which underpins traditional techniques of assessment and hence it is difficult for students, teachers and administrators to understand it. She also found that this lack of understanding might jeopardise its potential. Yet students derived personal benefits from the process of developing a portfolio. These three studies indicate that the orientation of all concerned groups is crucial if one is to make proper use of the strengths of the portfolio. However, the process of preparing a portfolio is in itself a great instructor in its potential.

Johns and Leirsburg (1992) raise another problem associated with portfolios: that is, the scarcity of time available for planning, organising, and managing them. They further reported problems related to the handling and storage of portfolios: in the case of hard copy, physical space, while in the case of soft copy, memory space. Newman and Smolen (1993) also report similar problems with the implementation and evaluation of portfolios, and point out that a major concern is the time required both by students in preparation and teachers for assessment.

The above discussion suggests that, despite its many apparent advantages, PBA is in its infancy, and there are many issues and concerns at implementation level, especially with regard to practicability in a sustained manner (Centra, 1993). Burns (1999) also warns that

rhetoric in favour of portfolios will probably lead to premature use of them in higher education, even though systematic and rigorous evaluation of these methodologies is currently lacking in certain contexts.

This study also acknowledges the importance of such concerns and aims to develop a better understanding of the above issues in the context of postgraduate medical education at the QSA. Based on the discussions contained in this and previous chapter, and on the preliminary analysis of data, six research questions were framed for this study. These research questions are discussed in the first chapter and listed in Appendix no. vi. Findings related to these questions are discussed in the last chapter, 'Discussions and Conclusions'.

Chapter 4

Methodology: Being Flexible and Open-Minded

4.1 Introduction

This chapter discusses the research methodology chosen for this study. The methodology chosen for a piece of research basically depends upon two aspects: firstly, the epistemological and ontological beliefs of the researcher (Bateson, 1972, as cited by Denzin and Lincoln, 1998), and secondly, the purposes and context of the study (Pring, 2000). How these aspects have affected the choice of methodology for this study, the methodology finally followed and the problems and issues that arose in following it, are explained below.

4.2 My Ontological and Epistemological Beliefs

It will be helpful to the reader of this thesis if I describe my ontological and epistemological beliefs and my own life experiences, since, even with my best efforts to be completely free of biases, it is practically-speaking impossible. In the words of Denzin and Lincoln (*ibid.*:24):

“Any gaze is always filtered through the lenses of language, gender, social class, race, and ethnicity. There are no objective observations, only observations socially situated in the worlds of the observer and the observed.”

Mills (1959:195-96) argued in favour of using personal experience in intellectual work:

“The most admirable thinkers within the scholarly community you have chosen to join do not split their work from their lives. They seem to take both too seriously to allow such dissociation, and they want to use each for the enrichment of the other.....What this means is that you must learn to use your life experiences in your intellectual work.”

Yet this does not mean that our individual experiences can be treated as being on a par with systematic research, but rather that they should be used for an understanding of systematic

research. They should therefore be acknowledged but should not be treated as sacrosanct.

Mills (*ibid.*: 197) clarifies in the same study that:

“To be able to trust yet to be sceptical of your own experience, I have come to believe, is one mark of the mature workman. This ambiguous confidence is indispensable to originality in any intellectual pursuit.”

In other words, Mills suggests that the researcher's personal experiences should be used in such a conscious way that it should not affect his/her research adversely. However, this suggestion raises a concern about how a researcher can ensure that his/her personal experiences have only affected the research appropriately. There are different suggestions regarding proper use of a researcher's experience. Traditionally, it is commented that in qualitative research, the researcher is the instrument of the research. In opposition to this view, Jacob (1989) and Strauss (1987) argue that the prior knowledge and personal experience of the researcher are valuable data, which should be utilised as a major source of insights, hypotheses and validity checks. However, they stress that this is not a licence to impose one's assumptions and values uncritically on the research.

In this regard, Maxwell (1996:29) suggests that the researcher should make explicit the experience and views which he/she brings to the study in the form of a "researcher's experience memo". Halliday (2002) also supports this view and quotes Griffiths (1998:130):

“Without some acknowledgement of initial opinions, including beliefs and values, the research will certainly be biased..... Not only does such acknowledgement help to unmask any bias that is implicit in those views but it also helps to provide a way of responding critically and sensitively to the research.”

I value this idea, and in Appendix no. (v), I have tried to expose the relevant assumptions, expectations, beliefs and reasons for those beliefs that I have brought to this study. This will enable the readers of this study to relate my analysis to my biases and also make me critically aware of my biases so that I may behave more objectively while collecting and analysing the data. However, for the reader who would prefer not to go through the

Appendix no. (v), I shall briefly outline my epistemological and ontological beliefs here: I am neither an extreme positivist nor an extreme postmodernist, but rather, a realist. I believe that an objective reality does exist but that each individual sees and constructs a conception of this reality in his/her mind based on his/her past experiences, and on his/her social, occupational and emotional position. This conceptual construction of reality then determines the behaviour of the individual, which in turn affects the reality which actually existed in the first place, and thus a new reality is created. I value both qualitative and quantitative methods and understand that the method to be used depends upon the purpose of the research and the nature of the problem. As far as the universality of knowledge is concerned, I draw my understanding from Swann's (1999) work on Popper (1979), and believe that knowledge is contextual and is being continuously developed either as a result of the availability of new data and information which challenge existing knowledge, or owing to the emergence of new problems which cannot be solved by existing knowledge.

4.3 The Purpose of This Research Study and Appropriate Methodology

Most educational research studies have a general purpose and a number of specific purposes. As far as general purpose is concerned, Martimore (2000) suggests four purposes, namely to: (i) conceptualise, observe and systematically record events and processes to do with learning; (ii) analyse such observations in order to describe the conditions, contexts and implications of these; (iii) publish accounts of all that is known about the particular topic under consideration; (iv) offer a basis for further educational improvement by the advancement of trustworthy knowledge about education. However, in the UK, policy makers and authorities funding the research also wants research to show clearly and quickly 'what works', as stated by David Blunkett, Education Secretary, in the UK Government, 1997-2002.

"We need to be able to rely onsocial scientists to tell us what works and why and what types of policy initiatives are likely to be most effective. And we need better ways of

ensuring that those who want this information can get it easily and quickly.” (Blunkett, 2000 closing words, quoted by Sylva, 2000: 293)

There is a debate about this issue and about whether educational research should or is able to provide quick and ready-made solutions. Hammersley (2000) does not agree that it should, and argues that educational research helps the process of teaching and learning by providing improved understanding of practices, processes and institutions. He suggests further that it is difficult to apply this improved understanding directly and successfully and bring about immediate improvements. Nevertheless, improved understanding can be applied gradually through teacher education, revision of curricula and more informed and insightful practice. Black (2000:408) draws on Hargreaves (1998) and suggests that:

“Studies of teacher change indicate the need to build up practice slowly through programmes of development and dissemination which are matched to the capacity of teachers to take ownership of change, and at the same time to rebuild their theories in a form that supports and gives coherence to practice.”

Similarly, the general aim of the present study was not to search for instant remedies but rather to understand the process and effects of PBA as an educational intervention in the context of the postgraduate medical education in the speciality of anaesthesia. Curriculum designers may use the understanding generated from this research to improve the existing teaching, learning and assessment process incrementally and gradually.

This debate raises the question of which type of research methodology may best serve this purpose. The answer to this question can be found in how we perceive the research: i.e., as an ‘engineering model’ or as an ‘enlightenment model’ of research (Sylva, 2000). According to Sylva, in an engineering model of research, the facts are held to speak for themselves and the findings can be directly applied to policy formulation in a straightforward way. This model is based on the positivist tradition, but is criticised on the grounds that it assumes the translation of research findings into policy and practice without any problems (Goldstein and Woodhouse, 2000). In other words, this model ignores changes in context. Smith and Smith (1992) criticise this model for its assumption that research can

be value-free. They point out that bureaucrats and politicians prefer this model because it appears to provide easy solutions and mechanisms for control.

Hammersley (*ibid.*) cites Janowitz (1972), who points out that the engineering model of research is not suitable for social research and instead proposes the ‘enlightenment model’ of research. According to this model, research provides resources that practitioners can use to understand the situations they face, as well as to understand their own behaviour in such situations. According to Weiss (1977), the outputs of such research influence policy indirectly by building up opinion amongst practitioners and the public gradually. This can be achieved by conducting many different studies in similar but not identical contexts. Hammersley (*ibid.*) draws on Hargreaves (1978) and suggests that the qualitative tradition of research derives from this model and has an appreciative function. According to Hargreaves, the appreciative function is its ability to understand and represent points of view that are often obscured or neglected. He suggests further that such research can describe and explicate the behaviour of learners and perspectives of teachers and learners in the context under consideration. The primary purpose of this research study was to describe the behaviour of SpRs with reference to PBA and, if possible, the circumstances leading to that behaviour. The enlightenment model of research therefore suits this study better than the engineering model.

In a similar way, Brown and Riddell (1995) classify a research into two categories: school effectiveness (SE) research and school improvement (SI) research. In this classification, the SE model of research is identified broadly with a positivist, quantitative tradition and the SI model with a relativist, qualitative tradition., SE studies focus on outcomes that are readily measurable and produce findings which can be generalised and applied to a wide population, as a result of the large samples used in such studies. SI studies, on the other hand, are concerned with individual institutions with their distinctive processes and multiple goals. According to this classification, this study may be classified as being of the

SI type, since it seeks to explore the intended and unintended effects of PBA in the context of one school, namely the QSA. This is a single context, but the goals are many, since the purpose of the study is to understand and describe as many aspects of PBA as possible, in order to reveal its strengths and weaknesses. On the basis of this understanding, measures for improvement could therefore be applied to the context in which this study was carried out.

Moreover, drawing on Stenhouse, Ernest (1994) suggests that we do not know our aims fully, to the extent of being able to articulate them completely, until after we have carried them out. In the case of my study, the research questions became truly clear halfway through the research. I was framing and reframing research questions, according to issues indicated by a study of the literature, a growing awareness of the postgraduate medical education system and the analysis of the data collected during the initial phases of the study. In this situation, where even the research questions were not yet clear, it would have been irrational to fix rigidly the methods and instruments of the study to achieve a high degree of objectivity. However, the boundaries of the research study were fixed by the need to understand the process of PBA in the context of postgraduate medical education. Guba and Lincoln (1981:88) suggest the importance of framing the problem for deciding the course of study:

“Naturalistic inquiries are not mounted in a vacuum; like all other forms of inquiry, they emerge in response to perceived problems. This fact is of great importance, for it suggests a means by which the investigator can limit the inquiry, without imposing constraints that would force it into forms that are not naturalistic.”

Despite the importance of goals/aims achieved so far, qualitative educational research in the UK has been criticised heavily for its lack of focus, sampling bias and partisanship in the conduct and presentation of the research (Tooley and Darby, 1998). The focus of this criticism is on qualitative rather than quantitative research and seems to imply that there is something inherently wrong with qualitative research. Nevertheless, this criticism is

directed at the way in which qualitative research is carried out and not at qualitative research *per se*. It was therefore my responsibility to see that the basic principles of research were adhered to as much as possible so that the quality of the qualitative research was maintained.

The basic debate about the respective merits of qualitative and quantitative research is rooted in ideas about subjectivity and objectivity. Hodkinson (1998) has classified his research as hermeneutical and suggested that the tension between being objective or subjective is applicable to both the researcher and the respondents of research. Hence, even if the researcher strives to be highly objective, it is difficult to ensure that the respondents are not subjective. He argues further that the quality of findings is determined by the degree of subjectivity and objectivity of researcher and respondents and this makes the whole issue very complex. He draws on Gadamer (1979) and suggests that:

“All understanding is hermeneutical. All researchers are locked into a hermeneutical circle with the subjects they are investigating, for they can only see the subjects from their own standpoint, a standpoint that is historically, socially and culturally located. This means that not only can there be no logical starting point for research, there can be no untainted truth, or firm foundation upon which to build it.All knowledge is interpretation, for each of us has to interpret anything we sense before it becomes knowledge for us. But this is not to argue that knowledge is entirely subjective. For Gadamer, it is the location of our thoughts within continually changing and contingent historical traditions which renders those perceptions only partly subjective.” (Hodkinson, *ibid.*:563)

He finally concludes that both approaches: namely, radical constructivism based on an excessive focus on subjectivity and a positivist emphasis on researcher objectivity, are equally oversimplified and lopsided, while the use of hermeneutics can avoid this false polarisation.

However, hermeneutics is usually associated with phenomenology. Since the main approach used for analysing data in this research study may be termed as ‘hermeneutic phenomenology’, it is necessary to describe my understanding of this concept.

4.4 Approach Based on Hermeneutic Phenomenology

Phenomenology may be used as philosophy, approach or method (Ray, 1994). In this study, hermeneutic phenomenology is used as an approach simply to interpret and analyse the experiences of developing the portfolio in the light of existing theories. According to Ray:

“Thus phenomenology is, first and foremost, a philosophy or a variety of distinctive, yet related, philosophies. But it also is concerned with approach and method. Husserl (1970) the father of phenomenology, considered phenomenology to be all three – a philosophy, an approach, and a method.” (Ray, 1994:118)

Hermeneutic phenomenology comprises two words: i.e. hermeneutic, which means ‘interpretive’ and phenomenology, which means ‘to put into light or manifest something which can become visible itself’. It is clear that the combination of these two words produces a tautology, since there would seem to be no need to interpret something, which can become visible itself. However, this does reveal the real debate about phenomenology. Ray (*ibid.*) argues further that Husserl dreamed of a situation where human beings could feel and describe their experiences or the world in which they live as it was, i.e., without any preconceptions or prejudices. His aim was to avoid all conceptually bounded and theoretically-constructed beginnings in the human endeavour to understand the lived reality. But this aim of phenomenology to understand the experience without any preconceived theories simply by reflecting on the experience itself, is easier said than done. Heidegger (1962), a student and critic of Husserl, challenged the idea of understanding experience without any preconceived ideas or theories. He suggested that the understanding of experience is possible only with the help of interpretations based on presuppositions, and he proposed the term ‘hermeneutic phenomenology’ for this philosophy.

Schutz (1962, 1964, 1967, 1970) (as quoted by Holstein and Gubrium (1998:139)) attempted to add another dimension -that of ‘sociology’- to Heidegger’s ‘hermeneutic

phenomenology'. Schutz also talks of inter-subjective understanding with reference to hermeneutics, and this is based on his idea that the majority of people assume that others experience the world in basically the same way as we do, and that we can therefore understand one another in our dealings in and with the world.

"We take our subjectivity for granted, overlooking its constitutive character, presuming that we inter-subjectively share the same reality. Schutz point out that this inter-subjectivity is an ongoing accomplishment, a set of understanding sustained from moment to moment by participants in interaction." (Holstein and Gubrium, *ibid.*:140)

This concept of 'inter-subjectivity' or 'universality of subjectivity' is fascinating, since it means that although all human beings may see reality in different ways, nevertheless there must be some common understanding as a result of sharing experiences over a period of time. Such arguments support my understanding that people having a common context (or culture) share a reality and hence have a common understanding of that reality. However, their understanding of reality may differ according to their disposition (sub-context) within that context or culture, as described in my childhood story of 'Father, son and their donkey' in Appendix no. (v)

Acceptance of 'inter-subjectivity' or 'universality of subjectivity' within the realms of hermeneutic phenomenology helps us to understand human experiences without being bogged down in the problems associated with the following two concepts:

- (i) the same language can have different meanings for different people;
- (ii) people should derive meaning from experiences by keeping in abeyance their presuppositions and preconceived ideas.

In other words, to move forward, we have to assume that, within a given context, members of the community generally share the same meaning of language and create reality in same way. However, there may be some differences in their understanding of reality by different groups and sub-groups within that context; it should therefore be the job of the researcher to identify these differences and identify reasons for that subjectivity. In a nutshell, the

focus should be to treat subjectivity as a topic for investigation in its own right, not as a methodological taboo. With this in mind I started my journey to explore the understanding and creation of reality by different groups of SpRs (based on their sub-contexts) in the north of England (context in terms of location or space) at the beginning of the 21st century (context in terms of time).

Pring (2000) cites Stenhouse (1975: 156), who defines research as '*systematic, critical and self-critical enquiry which aims to contribute to the advancement of knowledge*', and argues that there are various ways of being systematic, different forms of enquiry and different modes of criticism, according to the nature of research questions. He further suggests that some educational researches are of poor quality because of a mismatch between the research questions and the method of enquiry. In this study, the nature of research questions is such that a qualitative approach is appropriate. However, I also took into account the suggestion of Arksey and Knight (1999), that social research using a qualitative approach should give authentic accounts of human thoughts, feelings and actions. At the same time, researchers need to recognise that those accounts do not apply to all people and that predictions cannot be made in the way that they are made in the positivist natural sciences.

4.5 Influence of Topic of Study on Methodology

The topic of this study also has an epistemological bearing on its methodology. As discussed in earlier chapters, portfolio-based assessment (PBA) is based on assumptions that knowledge is created or transformed by experience and reflection on that experience by individuals (Kolb, 1984), and that the application of knowledge depends upon the context or the situation in which it is used (Lave and Wenger, 1991).

These basic assumptions also apply to the methodology of this study, since the purpose of this study was to appreciate individual experiences and perceptions of PBA. If we want to

appreciate an experience, then we should also consider the specific context in which an individual's experience is situated. A qualitative approach, therefore, becomes the obvious choice for this purpose. However, there may be some common pattern of understanding amongst individuals that defines the organisational or institutional context. An understanding of such a context may therefore require the use of a survey or other quantitative methods. Arksey and Knight (*ibid.*:3) argue that individual elements, as well as common understanding, are both important. According to them:

"..... the claim is that perception, memory, emotions and understanding are human constructs, not objective things. Yet, this construction is not a chaotic process, because it takes place within cultural and sub-cultural settings, which provide a strong framework for meaning making. So we share a similar (but not identical) understanding of the things that are common experiences and subject to society-wide interpretations. We have similar understanding within our society of law, school and work, however we also bring to each of these an understanding which has personal elements."

According to this argument, similar experiences between members of a group or community can be interpreted in a common social way and in the language of that community. Consequently, it is necessary to comprehend this common understanding, even if we are more interested in individual views, so that the context in which an individual view is situated is also known to us. Often it is economical and effective to use surveys to explore this common understanding. Since it takes learners between 6 to 7 years in the medical education to become SpRs, it can be assumed that there is some common language and understanding related to educational issues amongst SpRs that can be appreciated with the help of the survey method. There may exist certain differences of understanding or opinion in some learners because they have acquired their undergraduate degree outside the UK. Nevertheless, this concern is offset to a great degree by the fact that most of the overseas learners have spent more than 2 years in the UK's medical education system and have therefore been socialised to some extent. The survey method was therefore used in this study to explore the SpRs' views on the existing assessment system and the non-clinical component of training.

Another factor which supports the use of a qualitative approaches for this study is that it deals with a new educational intervention. As Arksey and Knight (*ibid.*:3) suggest, that

"----if we encounter a fresh situation, then the understanding we construct is less governed by social norms, social rules and social conventions and are more likely to be more individualistic. Here we would need to use more qualitative approaches to try to understand the nature and effects of these meanings."

Since the process of preparing a portfolio was new to the SpRs who were participants of this study, their understanding was likely to be less influenced by social norms or rules, as there were no social norms regarding this situation. Instead, social norms were being formed during this phase. This study was therefore carried out at a formative stage of views about PBA. In this sense, it was akin to formative assessment, which is more qualitative in nature, since its purpose is to provide feedback for improvement. In contrast, summative assessment, that has as its purpose the certification of the extent of a student's achievement, is more quantitative in nature.

The relative newness of PBA therefore made naturalistic and qualitative approaches of enquiry more attractive. According to Guba and Lincoln (1981), scientific enquiry takes a reductionist stance: that is, it reduces the scope of enquiry to pre-formulated questions or hypotheses and seeks only precise information relevant to these questions or hypotheses. Naturalistic enquires, however, take an expansionist stance, and the enquiry seeks a perspective that may lead to the description and understanding of a phenomenon in its totality, or at least in ways those describe its complexity. In the case of naturalistic enquiry, enquiry grows outward from the point of entry, and the direction of the enquiry is determined by insights gained from previous steps. Thus this type of enquiry takes an open, exploratory and complex stance, which is crucial for developing theoretical insights into the problem. Scientific enquiry, on the other hand, takes a structured, focused, singular stance that is more appropriate for testing certain hypotheses or answering particular questions with certainty. Since PBA is a relatively new concept, understanding and the

generating of theoretical insights can be more successfully achieved using a naturalistic, qualitative method of enquiry.

Another dimension in the process of preparing a portfolio is that it is a highly individual process. Here, the term 'individual process' does not imply that it is a process detached from social reality. It is after all the process which involves reflection about a performance that takes place in a social context. However, the process of reflection or learning from the process of preparing a portfolio takes place in an individual's mind and hence it is 'idiosyncratic' and 'invisible'. It was therefore important to use methods where the experiences of individuals of using PBA could be understood with reference to their gender/seniority/ethnicity/performance separately.

However, there is another concern involving the relationship between individual human beings and the environment. According to Burrell and Morgan (1979), there are two different assumptions in this regard: one portrays people as responding mechanically to their environment, the other as initiating their own actions. They argue further that most social scientists position themselves somewhere between these two extreme views. I also consider myself somewhere in between, since, for me it is the 'environment' along with 'individual free will' which together decide the 'thoughts and action' of every individual. Similarly the 'thoughts and actions' of each individual contribute towards shaping the environment around him/her. I therefore tried to portray individuals' views and their contexts as authentically as possible as well as the context in which those views were situated.

Another concept which supports PBA and which also has an epistemological bearing on the methodology is that some knowledge is tacit and cannot be described in words, but only learned through experience (Schon, 1983). A naturalistic approach also recognises the tacit knowledge of the researcher, as Lincoln and Guba (1985:197) suggest:

“But despite everyone’s commonsense experience of tacit knowledge and its standing in other areas....adherents of the conventional inquiry paradigm persist in ruling it out as a basis for ‘objective’ investigations.....But there is a reason to believe that such knowledge cannot be so arbitrarily dismissed; that tacit knowledge, like values, intrudes into every inquiry whether or not the investigator recognises that fact or is willing to own it.”

Lincoln and Guba (*ibid.*) draw on Heron (1981) and argue that when objective instruments such as questionnaires are used, and a distance is maintained between respondent and researcher, the potential of the tacit component of knowledge remains unutilised. When a researcher comes into contact with participants, the tacit knowledge of the researcher comes into play and helps in creating a better understanding of the situation. In their view, tacit knowledge may be helpful in identifying or noticing certain features of a situation and thus in generating a better understanding of it. It is therefore the job of the researcher to see that understanding does not remain tacit, but is made explicit for the benefit of others. With hindsight, I can say that my tacit knowledge of assessment has helped me a great deal in understanding the issues involved as and when they emerged during the interviews with the SpRs, and helped me to frame relevant questions at the time.

It can be inferred from the above discussion that I have adopted a predominantly qualitative methodology in a naturalistic way, and that my approach to data collection and analysis was similar to a grounded theory approach based on hermeneutic phenomenology. However, I do not claim that this study aimed to develop grounded theory and I have only adopted certain features of this approach.

There are other categories into which a piece of research may be put, according to its purpose, such as theoretical research, evaluative research and action research (Bassey, 1995). The purpose of this research was decided by the Director of the QSA, who had introduced PBA as an educational intervention and desired to know its effects. His organisation, namely the NHS (National Health Service) funded this research, while he was closely associated with it as one of my thesis supervisors. So, although this study might appear to contain elements of action research, it may not be categorised as action research

since I was an outsider and was not researching my own practice (McNiff, 1988). Although the director had a vested interest in PBA 'working', his role as my supervisor did not affect my autonomy in conducting the research: the methodology, research questions and analysis were decided by me. However, he and another supervisor from the Department of Education of the University helped me as facilitators at every stage of the research. His main role was to help me understand the issues related to medical education, including the assessment system already in use, while the other supervisor helped me with issues related to research methodology and assessment in general. Moreover, the initial understanding of PBA was not used to modify its use during the research. Although it was tempting in the interests of education to change the existing PBA system, this was not done for two reasons. First, we did not want to make decisions on the basis of a small amount of data and second, the complex nature of the education of SpRs meant that implementing change quickly was not possible. Therefore, this research, although similar in some ways to action research, may not be termed as such.

However, this research may be classified as evaluative research, since I have tried to evaluate the process of PBA, which is a new educational intervention in the context of the QSA. Swanson and Chapman (1994) suggest that evaluative research strives to understand the mechanisms that make an intervention successful or not. When I started this research, my aim was to study the effect of PBA on the attitudes of the SpRs towards their learning and self-assessment. However, I soon realised that it was neither feasible nor important to measure a change in attitudes since that would have necessitated placing the focus of the research on measuring attitudes at the beginning of intervention and after the intervention, and then comparing these measurements. This would have been similar to 'a black box' approach, where participants are measured before they enter a black box and measured again as they emerge. Chen (1990) criticises this approach because what really happens

during the process remains unknown. Moreover, it is very difficult to measure attitudes or incremental change in attitudes (Anderson, 1981).

Another problem was that it would have been difficult to eliminate the effect of change in attitude owing to other factors, or to consider the effect of other factors. One or more groups of SpRs and a control group would have been required. However, difficulty in measuring attitude was not the sole reason for abandoning this goal, since I realised that first we should understand the process of PBA, and that understanding may also indirectly reveal the effects of that process. Buchanan (1992), as cited by Swanson and Chapman (1994), suggests that process evaluation has a different set of goals in social research from those of outcome evaluation. According to Judd (1987), evaluation research using qualitative methods has the explanation of the process as a goal and attempts to explore what has happened inside the black box and/or how and why that change has occurred. The title of my study was therefore changed from 'Evaluating the effects of PBA on the attitudes of SpRs towards learning and assessment at the QSA' to 'Understanding the process of PBA with reference to the attitudes of SpRs towards learning and assessment at the QSA'. As a result, this research study may be classified as 'process evaluation' rather than 'outcome evaluation'.

The audience or beneficiary of evaluation research decides the way that evaluation is conducted (Shaw, 1999). According to Bassey (*op cit.*), the audience for evaluation research can be classified in two major groups: policy makers and practitioners. He suggests further that policy makers are more interested in generalisations, while practitioners are more interested in the details of the process. Normally, evaluation research is associated with policy research. Bogdan and Biklen (1998: 211) suggest that in evaluation and policy research, the researcher is most often hired by a government agency or upper level administrator to describe and assess a particular programme of change overseen by them in order to improve or eliminate it. Although this study is a kind of

evaluation, this research may be more useful to practitioners (education providers) than to policy makers. First, the focus of this evaluation is on the process rather than on the outcome, and, second, this evaluation is carried out in one particular setting. Any understanding generated by this evaluation cannot be applied as it is, to other similar settings, and hence policy makers cannot make concrete decisions based on this research. However, it is hoped that this report may illuminate the understanding of practitioners working in similar situations. Moreover, if similar studies are conducted in similar but different settings, then a meta-study of such studies could serve the needs of policy makers.

4.6 Designing the Study and Choosing the Methods

Like all researchers, I had to choose methods that supported my methodological beliefs and that suited the context of the study. Since I believe in naturalistic enquiry, it would have been paradoxical to decide about methods beforehand and plan accordingly. As Lincoln and Guba (*ibid.*:187-88) suggest:

“Naturalistic studies are virtually impossible to design in any definitive way before the study is actually undertaken. But naturalistic studies have a characteristic pattern of flow of development,.....Once in the field, the enquiry takes the form of successive iteration of four elements: purposive sampling, inductive analysis of the data obtained from the sample, development of the grounded theory based on the inductive analysis, and projection of the next step in a constantly emergent design.”

This research study has followed a similar pattern, but the broad outline of the study and methods were decided in advance, according to recommendations from the literature and the context of the study. Yet the implementation of these methods could be highly flexible. For example, interviews were chosen as the main method of collecting data, but the questions asked were changed on the basis of analyses of data collected previously and according to the context of each participant. Janesick (1998) suggests that we should not be overly preoccupied with a justification of methods, since over-describing the process of selecting and defending them may become so pervasive that the actual story to be told may

get lost. Nevertheless, in this study I feel it is necessary to justify the selection of my methods, since one purpose of a Ph.D. is to show that the principles of research methodology have been understood and that whatever path was followed was chosen consciously.

According to Punch (1998:158), a spectrum of techniques may be used for qualitative research, but three techniques are central to it: namely, observation, interviewing and documentary analysis. Of these, I have used interviewing and documentary analysis. However, I have also used questionnaires. The reasons for selecting these methods and the ways in which they were used are discussed in the following sections.

4.6.1 Unfeasibility of Participant Observation

Observation is considered as one of the natural choices of method for research using a qualitative approaches (Robson, 1995:191). However, in this study, participant observation was not possible since I am not a medical professional and hence it would have been difficult for me to understand in an authentic sense the activities taking place in an operation theatre. Moreover, access to operating theatres was not allowed. The second reason is that the focus of this study was on the process of preparing a portfolio. This process, although based on professional activities situated in the social context of the trainee doctors, is a highly individualistic process which takes place in the mind of the trainees. It was therefore neither possible nor relevant to be a participant observer in this study. However, not being a doctor or a non-participant observer may be considered as a threat to the validity of the study, since it means that I may not have fully understood the activities and the context in which those activities took place fully. I attempted to overcome this problem by:

- (i) being with the SpRs (Specialist Registrars in Anaesthesia) in situations where access was allowed to me (such as in classes, wards and simulated operating theatres), and by talking with them whenever they were free;
- (ii) studying literature describing how anaesthetists work and learn;
- (iii) asking respondents to validate my understanding on a regular basis. I was also in constant touch with one of my supervisors who is a consultant anaesthetist;
- (iv) discussing details of methods with my supervisors and other colleagues and pilot testing methods with them, which enabled me to verify that I was able to clearly understand the language of the SpRs and the real issues involved in PBA.

One of the reasons that observation is advocated for qualitative enquiry is that, in order to understand and explain the world of the participants, researchers should also immerse themselves in that world. If immersion is not possible, then researchers should be as close to the natural setting as possible (Bogdan and Biklen, *ibid.*:74). According to Boyle (1994:167), being close to the setting adds to the reflexivity of the researcher, since he/she is affected by the context and this helps to produce a proper understanding of *emic* (insider's view) by an *etic* (outsider's view).

In other words, it is important to have a sound understanding of the wider context in which the phenomenon under study is taking place. In the words of Boyle (*ibid.*:162):

“An ethnography is holistic, and contextualising the data involves placing observations and interview data into a larger perspective. A central tenet of ethnography is that people's behaviour can be understood only in context; that is, in the process of analysis and abstraction, the ethnographer cannot separate the elements of human behaviour from their relevant context of meaning and purpose. Indeed it is this context that provides for the understanding of human behaviour.”

A key question remains concerning the context of this study. At first glance it seems that the context consists of the wards and operating theatres where anaesthetists work.

However, the main context for PBA was the existing training and assessment system in which this intervention was carried out. How the trainees and teachers treated this intervention depended on their perception of the existing system. The second factor that defined the acceptance or rejection of PBA was its compatibility and interaction with the existing training and assessment system. The study of the existing teaching and assessment system was, therefore, more relevant than that of the work environment in wards and theatres. I attempted to understand the existing teaching and assessment system by studying the relevant literature and by asking questions of the SpRs regarding their perceptions about the system. The following section describes the questionnaires used for this purpose.

4.6.2. Questionnaires

Obtaining an authentic understanding of the existing system of teaching and assessment would have been possible had I been a student like the other SpRs, since it is an abstract concept, but this was not practicable. A method which was practicable was to ask the SpRs about their perceptions of the existing assessment system. It was important to study the context before studying the specific phenomenon, and hence at the beginning of the study, I aimed to obtain an understanding of the context by using two questionnaires. Since PBA relates to both the learning and assessment systems, understanding of both systems was therefore required.

The first questionnaire was designed to examine the trainees' perceptions of the different components of training. As far as the existing training system is concerned, the training of the SpRs can be divided into two main components: clinical and non-clinical. As discussed in previous chapters, the literature suggests that SpRs place a strong emphasis on the clinical component of their training, while the non-clinical component is not accorded the desired importance. In this scenario it was assumed by those introducing the PBA method

that it would be effective in motivating the SpRs to focus also on the non-clinical domain of the curriculum.

In order to understand the SpRs' attitudes towards the non-clinical component of their training a questionnaire using a Likert scale was prepared. This consisted of an equal number of positive and negative statements about different non-clinical components of the training, such as medical audit, teaching juniors, reading journals and publishing in them, conducting research, attending meetings and assisting in hospital administration. Trainees were asked to give their opinions about each statement on a four point scale. It was piloted with a group of other Ph.D. students and research associates in the department of education, and modified on the basis of their useful comments and suggestions about layout and language. Finally, it was piloted with a group of SpRs and consultants; they suggested some more statements and changes to the language in some places. On the basis of these comments, the Likert scale was finalised in consultation with my supervisors.

A questionnaire using a modified Likert scale (Appendix no. 8) was sent by post to 90 SpRs, out of which 47 (25 in the first instance and 22 after a reminder) replied (making a 52% response). The population of SpRs may be classified according to gender, nationality, years of training and performance in training, but this type of stratification were not used with this sample, for three reasons:

- (i) It was not the purpose of this questionnaire to reveal individual differences and reasons for these differences. Rather, the purpose was to understand the general attitudes of the trainees as a group towards the non-clinical component of training so that the context in which PBA was introduced could be understood.
- (ii) The questionnaire was sent to all SpRs and hence the question of representative sampling did not arise.

- (iii) Since the size of the sample was about 52% of the whole, it may be assumed that each group has been represented reasonably. The main purpose of aspiring to obtain a representative sample was not in order to make generalisations but to include the perspectives of different groups of participants.

However, Holden, *et al.* (1993), as cited by Arksey and Knight (*ibid.*:58), suggest that the characteristics of those participants volunteering to take part in the research may affect the data. In this study, it might be possible to infer that those SpRs who responded may be more sincere or studious or co-operative compared to those who did not respond. As a result, any understanding generated by an analysis of such responses may be biased towards the views of such SpRs. However, issues related to the non-clinical component of training and the existing assessment system were also discussed during two sets of interviews conducted about PBA, and for these interviews stratified representative sampling was used, hence it may be assumed that the understanding developed from the interviews might have reduced the bias present (if any) in the understanding developed from the questionnaires.

The second important context was that of the present assessment system. This mainly comprises the RITA (Record of In-Training Assessment) and appraisal supported by reports by consultant supervisors, logbooks maintained by the SpRs and some self-report forms filled in by them. The RITA is principally summative type of assessment and is used for promoting trainees to their next year of training, while appraisal is mainly formative assessment and is used to identify areas of weakness in training and to plan subsequent training accordingly. (Please see Appendix no. iii, for details of the training and assessment system for Medical Education in the UK) PBA was introduced on the assumption that it would assist the RITA and appraisal and widen their scope. The acceptance and effectiveness of PBA would therefore depend on how the SpRs perceive the RITA and appraisal systems. A questionnaire (please see Appendix no. vii) about the present

assessment system was prepared, following the same procedure as followed for the preparation of the first questionnaire (about different non-clinical components of training), and both were sent together. Almost exactly the same number of SpRs who responded to the first questionnaire also responded to this questionnaire (i.e. 45 out of 90). These responses were analysed to evaluate the general perception of the SpRs regarding the assessment system and the RITA.

An analysis of the responses to both questionnaires helped me to understand the existing system of training and assessment, to conduct interviews about PBA, and to understand the interaction of PBA with the existing system. Issues pertaining to the existing training and assessment system were also discussed in the interviews in order to triangulate the understanding developed from the questionnaires. However, the study of PBA raised some doubts about certain aspects of the existing system, and additional questions were asked in subsequent interviews for clarification about those aspects.

4.6.3 Interviewing

Apart from observations, the other method that is considered suitable for qualitative studies is interviewing the main stakeholders.

"-----there is a very practical side of qualitative (research) methods, that simply involves asking open-ended questions to people and observing matters of interest in a real-world setting in order to solve problems." (Patton, 1990: 8)

Since this study involves the 'phenomenon of understanding from experience', (which also involves understanding about understanding, or meta-cognition), only those who have undergone this experience can talk about this, and it is difficult to observe this. In this situation, interviewing becomes the obvious choice. Tuckman (1999: 237) describes the benefit of interviewing as follows:

".....by providing access to 'what is inside a person's head' these approaches allow investigator to measure (sic.) what someone knows (knowledge or information), what

someone likes and dislikes (values and preferences) and what someone thinks (attitudes and beliefs). ”

In a similar vein, Rubin and Rubin, (1995:5) suggest that:

"Qualitative interviewing is both an academic and a practical tool. It allows us to share the world of others to find out what is going on, why people do what they do, and how they understand their world."

As far as types of questions are concerned, Ray (1994) highlights the fact that research or interview questions in phenomenology centre around the meanings of the experience. Ray has further suggested that, in the case of pure phenomenology, research questions and interview questions are not predetermined, but rather flow within a clue and cue-taking process after the initial meaning question is asked. The phenomena of experience are probed with the participants until “the thing itself” is illuminated and described. However, in the case of hermeneutic phenomenology, questioning can include conceptual, theoretical, or historical traditions as part of the questioning process. This suggests that a non-directive or semi-structured form of interviewing based on *a priori* theories of learning (but without any preconceived ideas about these theories with reference to the context of study) will suit the purpose. For this study, I therefore used non-directive interviews followed by focused interviews (based on an analysis of the portfolios created by the respondents).

4.6.4 Non-directive Interviews: the principal features of these are the minimal direction or control exhibited by the interviewer, and the freedom the respondent enjoys to express his/her subjective feelings in as much detail as and in whatever sequence he/she chooses or is able to. Moser and Kelton (1977) suggest that the informant is encouraged to talk about the subject under investigation (usually about his/her opinion) and the course of the interview is mainly directed by him/her, while there are no set questions or pre-determined framework. This approach is recommended when complex attitudes are involved and when one's knowledge of them is still in a vague and unstructured form. This was also the case in

this study. According to Cohen and Manion (1997), the main advantage of this type of interviewing is that it is free from interviewer's bias to a great extent.

I was initially apprehensive that if the SpRs did not say enough about all aspects of their experiences, I would have to direct them more obviously. With this in mind, I prepared a set of questions designed to draw the attention of SpRs towards various aspects of PBA. These questions were prepared based on the literature about portfolios, the existing system of education and assessment for SpRs, and on theories of self-directed learning and self-assessment. The list of these questions appears in Appendix no. (ix).

These questions were based on theoretical assumptions about learning and assessment, and aimed to explore the meaning of experience in an unstructured way: they may thus be considered as in line with hermeneutic phenomenology. But this does not mean that the purpose of these questions was to prove or disprove theories about learning and assessment or professional development. Rather, the purpose of was to generate a discussion about the process of learning and assessment during the lived experience of developing a portfolio. It was expected that these interviews would reveal the experiences of the SpRs with reference to their learning and assessment, and that an analysis of their responses with an open mind might provide us with new insights into or understanding of the learning process in this context. These questions were not used in any particular sequence, and were used only when conversation halted.

Some SpRs were able to encompass most of the aspects of PBA in their reply to the first question, namely: what is your experience of preparing a portfolio? In most cases, the direction of interviewing was decided by the response of the SpR to this question. This approach was in line with Rubin and Rubin (*ibid.*: 7), who suggest that:

“Qualitative interviews and ordinary conversations share much in common. As in normal conversation, questions and answers follow each other in a logical fashion as people take

turns talking. Researchers listen to each answer and determine the next question based on what was said."

Transcription of the interviews was started immediately after a few of interviews had been conducted. This meant that subsequent interviews could be modified in light of preceding interviews, as Erlandson *et al.* (1993:109) suggest:

"The analysis of the data gathered in a naturalistic inquiry begins the first day the researcher arrives at the setting. The collection and analysis of the data obtained go hand-in-hand as theories and themes emerge during the study."

The second purpose of starting transcription was to improve the conducting of interviews by asking for supervisors' comments on first few transcriptions. However, the initial interviews gave rise to a number of new concerns. In the next interviews, I therefore asked about these problems if the interviewees had missed those points. Similarly, I stopped asking certain questions if I realised that I was getting the more or less the same answer to these questions from the SpRs and that nothing new was coming out. Moreover, in order to make the interviews more like two-way conversations, and to make sure that the concerns of the SpRs are also dealt with, I asked SpRs to feel free to raise any questions to me about portfolio or the research. This helped to reveal some of their concerns, which otherwise would have been difficult to know. Thus the interviews were conducted in a flexible and open manner and may be classified as a combination of non-directive and semi-structured interviews. Hammersley and Atkinson (1995) suggest that the actual form of an interview is not very important and that it is more important for interviewers to be reflexive. In the case of my research, I attempted to be reflexive by being sensitive to the views and concerns of the SpRs and listening to them with concentration and an open mind.

According to the classification suggested by Patton (*op. cit.*) the interviews I conducted can be classified under the interview guide approach. I believe that the informal approach allowed the conversation to be interesting to the interviewees, and they felt comfortable

while talking and provided information frankly. First, the amount of time they spent talking indicates the interest of the SpRs in the subject of study. Briggs (1986) also suggests that a necessary condition for a successful interview is that interviewees must feel interested, at ease and comfortable to talk freely about their point of view. For these interviews I requested about 20 minutes, but in most cases the interview took 25 to 30 minutes. Moreover, despite the fact that some SpRs requested that the interviews should take no longer than 20 minutes, since they had urgent work to do, once the interviews started they sometimes continued for up to 40 minutes. However, in three cases, the interviewees were not interested in the interview and wanted to finish it as quickly as possible. In such cases, responses to questions were very short and did not lead to any discussion, and I was obliged to ask leading questions about every aspect of PBA. It was clear that these SpRs had agreed to give an interview solely because they thought that it necessary, since the interviews had been arranged by the secretary of the school of anaesthesia. The question of whether the interviews were voluntary or forced is related to the issues of access and sampling and is discussed later in this section.

Second, the way that the some of the SpRs behaved after the interviews indicated their interest in that, once the formal interview was over, most interviewees talked with me about my background, my family and my experience of living and researching in England. I also talked with them about their background, job satisfaction and their families, and this developed an acquaintance between us. After this, whenever I met them in the corridors of the hospital, they would exchange greetings and ask how my research was coming on. Some SpRs who met me after a long gap asked about the opinions of most SpRs and what I was going to recommend. Such conversations helped to give me some idea about professional and personal lives of the SpRs. Moreover, Powney and Watts (*op. cit.*) suggest that participants give correct and more detailed information only when they have confidence in the interviewer. However, this confidence in me shown by the respondents

was confusing, since the director of the school had indicated that medical students tend to be career-minded and that they maintain good social relations with those people who can affect their careers: hence they might provide socially acceptable answers in this research. This information, along with my perception that the SpRs might see me as a close associate of the director made me think that they might be behaving nicely to me not because that they had confidence in me, but because they wanted to remain in the good books of the director. However, since they also extensively criticised the portfolio, it may be assumed that the confidence in me shown by the SpRs was genuine.

4.6.5 Practical Issues: gaining and maintaining access

As far as gaining access was concerned, the SpRs were busy most of the time owing to the nature of their duties. Moreover, they followed a rota for working in different hospitals and different specialities of anaesthesia. Therefore, I had to request appointments by sending letters and emails. I was assisted greatly by the secretary of the School of Anaesthesia, who arranged exact times and dates for the interviews by locating the SpRs and asking them to give up their time. She also had a good working relationship with most of them and this helped me enormously. Although our request was always for voluntary participation in the interviews, her help created an impression in the minds of some of the SpRs that this research was being conducted officially and hence it was their duty to support it.

On the other hand, this semi-official status of the research created a problem, since some SpRs thought that I might report their views to the Director of School. This was because they believed that the introduction of PBA was being carried out on his personal initiative and hence any negative comments about it might hurt his feelings. This was evident from the fact that some SpRs asked me before starting the interview whether the Director was going to listen to the interviews. I therefore assured the interviewees at the beginning that the Director would not be listening to the interviews and would be given only the findings

of the research without any names of individuals. Powney and Watts (1987:45.) point out that:

“Mostly informants are worried if peers or their employer will have access to their comments from the interviewer,They are less worried by an academic audience or if they are confident of anonymity.”

Another issue related to access involves my nationality and background. (Powney and Watts, *ibid.*:35) point out the importance of:

“..the background characteristics of the interviewer, e.g. age, education, socio-economic status, race, religion, sex. Some of these, like age or race, will be apparent to the group being interviewed and will have their own effect. Others, such as education or religion, may be wrongly assumed by the interviewees.”

I did not have direct experience of conducting interviews for research purposes. Yet my six years’ experience of working at the ‘Centre for Measurement and Evaluation at the Technical Teachers’ Training Institute in India’ had given me skills in framing on-the-spot questions, since one of our main duties at the centre was to teach teachers to construct good questions, for oral and written examinations. Moreover, I showed transcripts of the initial interviews to my supervisors in order to obtain their guidance in improving the quality of the interviewing.

As far as my age was concerned, most of the SpRs were in the age group 28 to 36. Since I was 38, this was helpful. It is possible that a younger researcher might not have received the same respect I received.

About 30% of the SpRs interviewed were female, and my being male did not seem to be a barrier, mainly because the topic of study was not related to issues of gender. Moreover, the interviewees were mature professionals working in positions of authority and in close association with male colleagues, so they were confident and open in revealing their experiences to me. Rubin and Rubin (*op. cit.*: 36) suggest that many women prefer a less dominating type of conversation which is gentler and which allows women to speak at their

own pace and convenience. Similarly, Tannen (1990) points out that women tend to accord the same amount of importance to the way that a message is exchanged as to the message itself. I therefore, attempted to be more sensitive to them by being more polite and flexible in conversation and my behaviour. Nevertheless, it is uncertain whether, being a male I was able to interpret the meaning of the views of female SpRs as they would have liked me to do. Usher (2000:35) draws on Scott and suggests that the inclusion of women's experiences is not enough: the proper interpretation of these is more important. She suggests that:

“The idea that recounting experience is the means of self experience ignores the social and ideological systems in which the experience was produced. As she puts it, experience ‘is always already an interpretation and is in need of interpretation’.” (Scott, 1992:37)

This posed an ethical dilemma for me but I hoped that the qualitative approach I was using would be more reflexive and accommodative of different views. Non-directive interviewing was also helpful in this regard. Rubin and Rubin (*op. cit.*: 37) argue that more open and loosely structured ways of interviewing are necessary to learn about women and their concepts and concerns. Therefore, as a strategy, I decided to quote somewhat more from the transcripts of the interviews of female respondents. This might have served two purposes: first, it might have compensated for the lower number of female compared to male participants and, second, it might have compensated for any limitation in my understanding of their views. Usher (*ibid.*:23) also suggests that:

“Feminist ethicists insist that women's experience and moral reasoning be given space to represent their own self-images, choices and patterns of moral evaluation.”

With regard to issues of race and education, I did worry at the beginning of the research that I might not obtain proper responses, since I am Indian and a non-medical professional, whereas most SpRs are British. This was also a problem since medical doctors are considered an elite group in society. Arksey and Knight (*op. cit.*) suggest that it is difficult to gain access to elite groups and also to extract information from them. Moreover, they

warn that during initial phases of talk, people from an elite group assess the background knowledge base of the interviewer and if he/she appears unfamiliar with the issues involved, and unable to hold a relatively informed conversation, then they quickly stop the flow of information in order to finish the interviews as early as possible.

Being Indian did not seem to create any problem. One reason may be that in the UK there is a substantial presence of doctors of Indian origin (in the speciality of anaesthesia this proportion is somewhere between 15 to 20 %) and hence SpRs understand Indians well. Moreover, the topic of study was not race-related. Being a non-medical professional did not seem to be a problem either, since the SpRs recognised me as an educationalist and treated me accordingly. Analysis of responses to the questionnaires gave me an awareness of the general status of the existing training and assessment system, which helped me to talk confidently with them. Arksey and Knight (*op. cit.*: 104) argue:

“Demonstrating that you are knowledgeable about the area in which you are interviewing is valuable in two ways. First, you will have more credibility with the interviewee.....Secondly, there are implications in terms of the trustworthiness of the study. It is less likely that interviewees will try to be misleading or deceitful because they will fear being detected.”

Another minor point which might also have helped was my dress code: I noticed that most of the doctors dress formally, so I also made a point of doing likewise. Collinson (1992) and Warren (1988) suggest that employing similar ways of dressing develops confidence amongst participants. The Director of School was concerned about my treatment by the SpRs. He therefore invited me to an orientation meeting about portfolios arranged for the SpRs and introduced me to them. However, he also felt that my being an outsider was useful since the SpRs might not have expressed such frank views to an insider. This feeling accords with Powney and Watts (*op. cit.*), who suggest that, in some situations, participants are more open to an outsider interviewer in criticising their circumstances.

However, it was not always easy to understand the pronunciation of some of the SpRs with different accents, especially when they spoke quickly. When some SpRs who were working in distant hospitals offered to let me interview them on the telephone, I thus preferred to visit the hospital and interview them in person.

The other issue which needed continuous monitoring was how many interviews I had to conduct and with whom. These decisions were based on the analysis of the data, since the concept of theoretical sampling was adopted alongside representative sampling. This issue is discussed later on in this chapter.

Non-directive interviews about the process of preparation of portfolios were followed by in-depth focused interviews based on a content analysis of the portfolios prepared by the SpRs.

4.6.6 Content Analysis of the Portfolios

During the non-directive interviews, the SpRs were asked to show me their updated portfolios so that I could analyse them. Most of the SpRs were kind enough to share their portfolios with me, whenever they were ready. I asked them to submit their portfolios on a voluntary basis in January 2002, almost two years after portfolios had been introduced. After a few reminders, I had collected twenty four portfolios by the end of March 2002. Some of them were provided by SpRs who had not been interviewed. The issue of sampling is discussed along with the analysis in the following section.

I analysed the content in two ways. First, I counted the various sections of the portfolio completed by the SpRs. Second, I read the content of the portfolios and tried to understand the extent and type of reflection in which the SpRs were engaged. This content analysis had two purposes: first, to study the response of the SpRs as a group, and second to analyse the portfolios individually with reference to the views expressed by a particular SpR in a

non-directive interview, and to decide on questions for the focused interview of that SpR. Krippendorffs (1980:21) defines content analysis as *"a research technique for making replicable and valid inferences from data to their context."* This definition emphasises the relationship between the context and the content to be analysed. This context includes the purpose of a document as well as its institutional, social and cultural aspects. In this study the 'Portfolio of respondent' is a document generated by an educational intervention, namely PBA, and hence it is a document that is highly contextual. Although content analysis has traditionally been seen as a quantitative technique, it is also used qualitatively (Lincoln and Guba, 1985:337-39). In a quantitative tradition, according to Rosengren (1981:34):

"Content analysis particularly consists of a division of text into units of meaning and quantification of these units according to certain rules."

In contrast, a qualitative tradition, according to Ray (*ibid.*:129), enables document analysis to be a reflective process, involving a sensitive adjustment and an effort to derive meaning from it, since a written document is a text, which also encompasses inherent discourse within itself. He further suggests that in the case of a purely descriptive or phenomenological approach, data analysis is based on a presupposition of meaning by intuitive, reflexive insight. In the case of a hermeneutic phenomenological approach, the process of deriving meaning involves describing the experiences from the available text as well as a thematic interpreting of these experiences with a metaphoric insight (Van Manen, 1990). Since I analysed the portfolios prepared by the SpRs in order to determine what kind of reflection the trainees had engaged in while preparing the portfolios, this process may be termed 'reflection on reflection', in line with the arguments described in the literature review.

Although my analysis is not free from theories or presuppositions, I attempted to reflect on the reflections of the SpRs with an open mind. However, this analysis is based on my

knowledge about different kinds of reflection and their perceived role in developing professionalism. As a result, the document analysis may incorporate an element of interpretation, alongside simple value-free description. Following earlier discussions in this chapter, this approach may be termed a hermeneutic phenomenological approach rather than a pure phenomenological approach. I did not search for evidence in these documents that would verify presupposed theories about reflection or professional development; instead I looked for emerging categories and themes across different portfolios and then related them to ideas from the literature. The methodology used for content analysis is the same that used to analyse the transcripts of the interviews, which is based on Strauss and Corbin (1990) and Miles and Huberman (1984). These techniques are discussed under ‘analysis’ below. The content analysis helped me to gain new theoretical insights, which threw some light on the way the SpRs have utilised PBA. This, understanding obtained from the content analysis is used in conjunction with understanding obtained from the analysis of other kinds of data.

4.6.7 Focused Interviews

Merton and Kendall (1946) developed this technique of interviewing, which involves interviewing immediately after observing the interviewee in an episode related to the study or questioning based on an analysis of some relevant document. Ecclestone (2000c: 177-78) also used this technique in her research:

“Focused interviews carried out immediately after observing a lesson ask teachers to focus on what went well in the session, their values and goals for students and factors affecting achievement of these. Avoiding a hypothetical focus on the effects of policy and focusing instead on real activities is more likely to avoid espoused theories.”

In other words, a focused interview is more likely to lead to more relevant conversation. In this study, focused interviews were based mainly on content analysis of SpRs’ portfolios. The following steps were involved in these focused interviews:

- (i) Using the content analysis as a basis, a specific interview guide for each trainee on the process of portfolio preparation was prepared. These interview guides identified the principal data to be obtained in the interview.
- (ii) Analysis of responses to non-directive interviews and the content analysis of the portfolios also raised some general issues, and hence some common questions were asked of all SpRs in order to obtain a better understanding of those issues. (Please see Appendix no. (x))
- (iii) The interviews focused on the subjective experience of professionals in relation to the process of preparation of a portfolio. The responses provided answers to questions such as why a particular SpR had not prepared a particular section of the portfolio and why some another SpR had prepared most of the sections of the portfolio but not reflected on them. However, a number of unanticipated responses to the questions gave rise to further assumptions and insights regarding the issue under study.

In this way, the emphasis of these interviews was on appreciating the interviewees' experiences, the problems they faced, and on improving my understanding of PBA.

The methodological problems and ethical dilemmas faced in the focused interviews were more or less the same as those faced during the non-directive interviews, but these interviews were more comfortable because by that time I had developed an acquaintance with the system and with individual SpRs. However, these interviews were more demanding for the SpRs since they were asked specific questions and also for reasons for not completing certain sections of the portfolio. This created ethical dilemmas for me, as discussed below. The criterion adopted for sampling for these interviews is discussed in detail in the section on analysis later in this chapter. For the sake of simplicity, hereafter I

have used the terms ‘first interview’ for the non-directive interviews and ‘second interview’ for the focused interviews.

4.7 Loose Triangulation

The purpose of combining different methods was to increase the coverage and reach of the study. Another reason for doing this was that different methods and tools complement each other and yield different kinds of information.

In effect, a loose form of triangulation serves two main purposes: namely, confirmation (Denzin, 1978) and completeness (Jick, 1983), but it is the latter in which I was more interested. Denzin (*ibid.*) suggests that there are four types of triangulation namely data triangulation, investigator triangulation, theory triangulation and methodological triangulation. It is clear that in this study, investigator triangulation is not used but data triangulation is. However, it can also be said that methodological triangulation, combining quantitative and qualitative methods, was used. As for as theoretical triangulation is concerned, I tried to analyse the data without reference to any particular theory, and hence multiple theories might have affected the data analysis.

Debate over the relationships between quantitative and qualitative methods (Bryman, 1988) has led to renewed interest in triangulation, and in recent years this approach has been seen as a way to obtain a greater completeness. In this regard, Fielding and Fielding (1986:34) suggest that researchers should:

“.....incorporate at least one method of data collection that describes and interprets the context in which the interaction occurs and one that is designed primarily to examine the process of interaction it self”

In this research, survey methods were used to collect information about the context, while qualitative methods were used to study the phenomenon. Nevertheless, using multiple methods has associated problems. Mason (1994) points out that data collected on a

phenomenon by different methods cannot be simply accumulated since data from different methods may relate to different aspects of that phenomenon:

“.....in our study we saw the two methodologies giving us data on different things. The intellectual task for us was to formulate an account of how we thought those things were related.....” (Mason, 1994:105).

The same is true for this study since different methods of data collection provided information about different aspects of PBA and about different aspects of the context. However, the process of analysis helped to link these data with each other and develop a coherent picture.

Rossmann and Wilson (1985) suggest that different methods of data collection can sometimes provide conflicting information and this creates a problem of which information should be accepted and which should be rejected. However, I found that it was sometimes the case that, conflicting information was provided by a participant while responding to different question within the same method. This was especially evident in responses to the questionnaire using a Likert scale, where respondents selected the option ‘agree’ for both positive and negative statements about the same component of their training! There may be different reasons for conflicting information. One may be simply that respondents have not read the statement carefully. In such cases, the information should be discarded or, if resources permit, data may be collected again. In some cases, there may be genuine reasons for that conflict and they should be explored. I did not collect the same information a second time but instead, attempted to explore the reasons for the conflict by analysing the conflicting data in reference to other available data. Similarly, some participants provided conflicting information during the interviews, but more probing questions clarified these issues both to the participant and to me. It seems that some participants reply without much thought and can think more broadly following in-depth, probing questions.

4.8 Analysis of Data

For sampling, data collection and analysis, I adopted an approach similar to the grounded theory approach (Strauss and Corbin, *op.cit.*). I do not claim that this study aimed to develop grounded theory but simply that I used some of the techniques involved in a grounded theory approach. According to Glaser and Strauss (1967), the main features of this approach are constant comparative analysis, theoretical sampling, systematic coding procedures, conceptual density and conceptual integration. I attempted to incorporate these features as far as possible, depending upon the context and the limitations of my study. The extent to which I could do this in analysis is discussed along with the analysis of the data in the next chapter. Bryman and Burgess (1994:220-21) point out that grounded theory is rarely employed by researchers in its totality; rather, there is a general disposition on the part of the researcher within a grounded theory approach. The main problem with this approach is that its use gives rise to two types of questions: first, whether coding is *etic* or *emic* (Lincoln and Guba, 1985), and second, whether generated theory is substantive or general (Strauss and Corbin, 1998). Strauss and Corbin (*ibid*:168) draw on Tesch (1990) and argue that:

“Qualitative modes of interpretation run the gamut from ‘Let the informant speak and do not get in the way’ on through theme analysis, to the elucidation of patterns (biographical, societal and so on), theoretical frameworks or models (sometimes only loosely developed) and theory formulated to various levels of abstraction (Tesch, 1990).”

Glaser and Strauss, (*ibid.*) suggest that two types of theory can be developed from a grounded theory approach: substantive and formal. Morse (1994:40) points out that substantive theory is context-bound while formal theory is more abstract and may be applied to many settings. However, substantive theory is also important, in the words of Glaser and Strauss (1967:79):

“Since substantive theory is grounded in research on one particular substantive area (work, juvenile delinquency, medical education, and mental health) it might be taken to

apply only to that specific area. A theory at such a conceptual level, however, may have important general implications and relevance, and become almost automatically a springboard or stepping stone to the development of a grounded formal [or as is more usually said, “general”] theory.”

In this research I have not developed any formal or general theory. However, I have attempted to develop theoretical insights by generating themes based on coding, and by searching for certain patterns in the data. It is possible that these theoretical insights may be used in conjunction with future research to generate a substantive theory in the area of medical education or a formal theory in education.

With regard to the question of *etic* or *emic* coding, Lincoln and Guba (1985) suggest that research is *etic* if coding is pre decided, and *emic* if it emerges from the data. A grounded theory approach is therefore akin to *emic* research, and Turner (1994) suggests that grounded theory is a method in which categories for coding data are derived from the data themselves, and emphasis is placed on the discovery and elucidation of links between the categories so generated. I also aimed to do this. But Miles and Huberman (1994) suggest that it is very difficult to produce pure *emic* research, since the effect of the *a priori* knowledge of the researcher and his/her theories or preconceived ideas cannot be ignored. I have tried to understand the experiences and concerns of the SpRs without any preconceived ideas about them or their existing assessment system. This was relatively easy for me, since I was a complete outsider to the system. However, I had my own views about assessment which are based on my experience and on the reading literature about it for this study. I therefore developed coding from the data as it emerged naturally, but the relationships between the codes and the theoretical insights generated in this way were also influenced by my understanding of theories of learning and assessment. Robinson (1993) suggests that research into one particular problem can be useful in creating generalisable knowledge if the analysis of a particular problem is linked with more abstract theoretical knowledge and principles that can be applied across a wide range of similar situations. In a

similar vein, Gough and Scott (2000) suggest that qualitative research can have two distinct aspects. One of these aspects may be more *emic* in character and can focus on the understanding the meaning attributed to the phenomena under study by respondents in a specific research context. The other can be more *etic* in nature and have its focus on interpreting and presenting data in such a way that it may be linked with generalisable knowledge.

However, this is easier said than done! Strauss and Corbin (*ibid.*:166) warn that

“This methodology now runs the risk of becoming fashionable.....People who think they are doing grounded theory studies often seem to concentrate on coding as this methodology’s chief and exclusive feature, but do not do theoretical coding Also, even theoretical coding, unless done in conjunction with the making of constant comparisons, is unlikely to produce conceptually rich theory.”

They further suggest that the three basic components of this approach are theoretical sampling, constant comparison and theoretical sensitivity. I have tried my best to address these components, as discussed below.

4.8.1 Issues Related to Sampling

With regard to sampling of data, I have combined the concepts of stratified representative sampling as well as theoretical sampling. Interviewing was voluntary and carried out according to the availability of the SpRs. Thus, the names of the SpRs to be interviewed were not decided in advance and that initially I interviewed whoever was ready. However, I did have the authority to choose which SpRs were to be interviewed. I therefore kept monitoring the list of SpRs interviewed to ensure a proportional representation of SpRs based on gender, ethnicity and seniority (based on year of training). This was a loose kind of stratified representative sampling (Best and Kahn, 1989). In total 24 non-directive interviews were conducted, respondents may be classified as

Male: 14 Female: 10

British: 18 Others: 6

Years 1 and 2: 9 Years 3 and 4 : 10 Year 5 : 5

The decision to group the SpRs in three groups according to their year of training was made on the basis of the analysis of initial interviews, which revealed that most of the trainees in year 1 and 2 were more concerned with learning clinical skills and passing their Royal College exams, and hence the non-clinical component of their education was a low priority for them. Similarly, trainees in the final year of the programme were more concerned about future jobs and most of them saw the portfolio more as a CV than as a tool for learning and assessment. SpRs from years 3 and 4 showed more interest in using the portfolio to support learning in the non-clinical component of their training. These differences in basic disposition influenced attitudes towards the portfolio considerably. This basic trend was noticeable since the collection of the data and its analysis were carried out as simultaneously as possible, as advised by Cohen and Manion (1997:20). Thus, in a way, this grouping of the SpRs may be considered as a form of theoretical sampling.

As far as the size of the sample is concerned, according to Strauss and Corbin (1990), the researcher has to generate the categories based on coding the existing data and should continue to collect the data until these categories became saturated and no new categories are generated. I conducted interviews until all the categories generated from the initial interviews were saturated. Some new categories were also generated and in subsequent interviews questions related to these new categories were raised in place of old questions for which no new information was emerging. The questions therefore changed after a few interviews, as new issues emerged and as the old categories were saturated. However, I did attempt to maintain the proportions of SpRs according to gender, ethnicity and seniority. The selection of SpRs for interview was based mainly on representative sampling, while the questions to be asked were based on the analysis of the data generated in preceding interviews. Although more questions were asked in subsequent interviews about new issues, transcripts of old interviews were again analysed on the basis of the new categories which had emerged.

The same approach of representative sampling was adopted for the content analysis of the portfolios, although the SpRs were asked to provide their portfolios on a voluntary basis. In total, 24 portfolios were received and analysed. The SpRs who supplied the portfolios may be grouped as below:

Male: 19	Female: 5	
British: 18	Others: 6	
Years 1 and 2: 7	Years 3 and 4: 10	Year 5: 7

Initially all the portfolios were analysed by coding them to generate a list of categories. In the next phase, these portfolios were again analysed with respect to a complete list of categories. The aim of this was twofold: first, to make a cross-case comparison, and secondly, to ensure that categories generated from portfolios analysed at a later stage and which may have been present in some of the preceding portfolios (analysed before the identification of these categories) were not overlooked. Strauss and Corbin (1990:181) also suggest that:

“It is not unusual in the early stages of a research project, for investigators to overlook or fail to pick up on the significance or meaning of certain events or episodes, because of a lack of theoretical sensitivity. Later, when developing new insights, an investigator can legitimately return to the old materials, and recode them in light of additional knowledge.”

However, a preliminary analysis of all portfolios and transcripts of non-directive interviews revealed that most of the SpRs were not good self-directed learners and that they had not prepared crucial parts of the portfolio, such as teamwork, communication skills, time management and even critical incident analysis. This raised new questions, such as whether SpRs valued learning from experience and how they perceived professionalism (see next chapter for analysis).

As a result, the next round of interviews, which were planned initially to be fully focused interviews based on the content analysis of the portfolios, were modified to include questions that probed new issues as well. I aimed to interview the same people, who had been interviewed during the non-directive interviews and who had provided their portfolios

for analysis. However, this was not possible since some of those who had given the first interview did not submit their portfolios, while some of those who had submitted their portfolios had not given the first interview. In addition, some of those SpRs who had submitted a portfolio and given a first interview were not available later on owing to study leave, maternity leave, etc. So the condition of having given a first interview was relaxed and trainees who provided their portfolios were invited to take part in a focused interview. In the cases where SpRs had not given a first interview, the focused interview was also used to ask some of the questions covered by the first interview.

In total, 16 interviews were conducted. The SpRs interviewed may be grouped as below:

Male: 13	Female: 3	
British: 11	Others: 5	
Years 1 and 2: 7	Years 3 and 4: 5	Year 5: 4

4.8.2 Constant Comparison and Theoretical Sensitivity

Finally, data generated from the three methods- non-directive interview (or first interview), content analysis of portfolio and focused interview (second interview) were analysed in three ways: first, all together for an individual SpR, second, as a comparison of different SpRs with reference to categories, and third, to generate a total picture.

In grounded theory approach, ‘theoretical sensitivity’ is considered central to the quality of analysis; it is defined by Glaser (1978) as an ability to recognise what is important in the data and to give it a meaning. Strauss and Corbin (1998: 173) suggest that the theoretical sensitivity of a researcher relates to his/her professional and disciplinary knowledge, as well as to both research and personal experiences. I described my professional and disciplinary knowledge at the beginning of this chapter, but did not describe my research experiences. In short, my research experience in education consists of supervising five master’s level researchers in the field of assessment and some quantitative research to evaluate implementation of educational projects. However, this was the first time I had

adopted certain features of grounded theory approach. Strauss and Corbin (*ibid.*) suggest further that the process of analysis and the scrutiny of relevant literature increases the sensitivity of the researcher.

During the whole of this process, techniques such as tracking and organising collected data and generating themes, categories and codes were all adopted systematically (Miles and Huberman, 1984; Lofland and Lofland, 1984). During the initial phase of the research, theme generation and categorisation depended upon the original research questions. As my understanding of the issues developed, some research questions were modified, some were dropped and others were added. Lists of codes and themes were also modified, in accordance with these changes in the research questions. During this process, not only the occurrence of the themes was analysed, but if an expected theme was absent, then the reasons for its absence was also explored. The general strategy for the analysis was aimed at 'basing the analysis on theoretical propositions' (Yin *op. cit.*:106).

Once I had developed an understanding of all the issues involved, I started a cross-case analysis based on a conceptual framework (Miles and Huberman, 1984) containing the dominant themes. The goal was to find a logical chain of evidence and to look for theoretical and conceptually rich insights by checking for rival explanations and identifying negative evidence (Robson, *op. cit.*:380). In order to check the theoretical insights thus developed, informants were asked for feedback on these insights after analysis was completed.

4.9 Ethical Dilemmas

At the beginning of this research, I had the naïve opinion that the topic of research is regarding educational practices and that there should not be any issues involving private information or conflicting interests between me as researcher and the SpRs as the 'researched'. Another reason for this belief was that the SpRs were an elite group of professionals and that this would counterbalance the power relationship between me and

them as researcher and researched. However, when I began the research I encountered a number of ethical dilemmas.

Perloff and Perloff (1980) suggests four general rules for good ethical practice: (i) participants in the research should know the purpose of the research and they should be involved with their full knowledge; (ii) they should not be exposed to physical stress, anxiety, or acts that would effect their self esteem; (iii) their privacy should not be invaded; (iv) the benefits of the research should be shared with them.

In this research, the participants were informed that the purpose of the research was to improve the system of PBA. Yet, as the next chapter shows, the nature of the research questions was such that it generated data that also revealed that most SpRs were not self-directed learners and their learning was governed mainly by certification and career aspirations rather than by a desire to improve professionally. This understanding is very important for the topic of study, since one purpose of introducing PBA was to make SpRs better self-directed learners. However, the full benefits of PBA cannot be reaped if learners are not self-directed to begin with. This needs to be reported in the interests of the SpRs, but it does reflect poorly on them. Although it is difficult to separate the PBA from the SpRs, since it was designed for them, reporting this finding may mean a breach of my contract with the SpRs. However, I do not intend to expose those who were more or less self-directed, and so any individual SpR is not harmed personally. Instead, I am reporting this for the benefit of future medical students, so that the training and assessment system may be designed to make them better self-directed learners. These two conflicting aims created an ethical dilemma. Simons (2000:54) suggests that it is ethical to adopt the approach which honours and respects the individuals from whom data are gathered and at the same time publishes the report in the maximum possible detail so that others can also learn from the outcome:

“The ethical dilemmas occurred when two equally appropriate principles were in conflict, ‘clash between right and right’ . It is ‘the balancing act of such principles in concrete situations [that] is the ultimate ethical act.’

To resolve this dilemma, I decided to share this understanding with the SpRs and ask for their comments on it before publishing it.

Another problem arose during the focused interviews when I was trying to explore the reasons why SpRs had not prepared many sections of the portfolio. Questions such as ‘what are the reasons for not preparing these sections of the portfolio?’ appeared to cause difficulty for some of the SpRs, while others were able to answer such questions after some thought and initial fumbling. This seemed to create an embarrassing situation for some of the SpRs, since they were unable to offer any reason for not preparing their portfolios properly other than a lack of enthusiasm. Rubin and Rubin (*op. cit.*:40) suggest that, according to feminist theorists, interviewers should not ask questions which may hurt the interviewees emotionally. This created a dilemma for me since this question could not be discarded because it was important to investigate any problems encountered by the SpRs. This experience taught me that even people at higher levels can feel embarrassed in front of researchers if difficult questions are asked. However, Arksey and Knight (*op. cit.*:111) suggest that such difficult questions should be asked at an appropriate time during an interview, when respondents are at ease, and if they are not able to answer, then leads should be provided. I also provided clues for answering this question, such as, “perhaps you have not yet completed the relevant component of your training?” Or “were you unable to find proper words to describe your experience?” When the SpRs replied that they had not done it merely because they did not feel enthusiastic about it, or they did not know why they had not prepared it, then I reassured them that some of the other SpRs felt the same way.

Another ethical dilemma arose when a number of SpRs suggested that it would be difficult for them to take time out for interviews, but that they would be able to give an interview if I came to the reception of the operating theatre. The first time I did this, the SpR came out and told me that I could interview him but that he might have to leave the interview in the

middle in order to attend to a patient. This made me anxious that the SpR might be risking the life of a patient. I told the SpR that my time was not as important as that and I could wait until the operation was finished, or that we could postpone the interview. However, he smiled and told me that in many operations, the continuous presence of an anaesthetist next to a patient is not required, but that the anaesthetist should remain near by, so that s/he can attend to the patient quickly if there is a need. I suggested that he could go and check on the patient even if there were no emergency call, and he laughed and said “don’t worry, for us the patient is more important than any other thing and I would not have agreed to be interviewed if there was any such problem.” The interview went well without any emergency call arriving from the operating theatre. However, in subsequent similar situations, before starting the interview I did suggest SpRs that they should feel free to go and check on their patients while I waited.

4.10 Issues of 'Reliability' and 'Validity'

The topic of this study (PBA) itself challenges traditional notions of 'reliability' and 'validity'. One of the assumptions that supports the use of PBA is that reliability should not be emphasised at the expense of the validity.

As shown in the discussion in Chapter 3, sometimes in order to ensure reliable measurement, we omit measurement of complex things or phenomena, since these are difficult to measure reliably. Thus overwhelming importance given to reliability may lead to studies measuring trivial phenomena. This reduces validity. A qualitative research philosophy also supports this view. According to Rubin and Rubin (*op. cit.*: 38):

" Qualitative research is not looking for principles that are true all the time and in all conditions, like laws of physics, rather the goal is the understanding of specific circumstances , how and why things happen in the world - knowledge in qualitative interviewing is situational and conditional."

In a similar vein, Arksey and Knight (*op. cit.*: 54) suggest that enquiry for the purpose of situational and conditional understanding is quite different from enquiry for the purpose of

positivist social science. Therefore, the concepts of reliability and validity cannot be transferred as it is from positivist approaches to post-positivist approaches. Moreover, the concept of reliability based on assumptions that phenomena are regular and unchanging is particularly inappropriate in epistemologies that consider the situated cognition, complexity and change as normal features which pervade most areas of life.

It is clear that, in the case of validity, differences in opinion between positivist and post-positivist approaches are mainly restricted to the methods employed to achieve validity, while in the case of reliability, there is a fundamental difference of opinion about the concept itself, and this should be discussed.

In positivist approaches, the concept of reliability means that a study should be sufficiently accurate to be replicable in similar situations which are separated by time, space and even carried out by different researcher. According to post-positivist approaches, similar situations rarely exist and hence it is practically impossible to replicate any study. Lincoln and Guba (*op. cit.*) suggest that the concept of reliability as applied to post-positivist approaches means consistency and transparency in one research study only without reference to another, similar study. This requires researchers to show how the research was done and how decisions were made so that the reader can conduct an audit trail. In other words, the researcher has to prove that his/her methods were appropriate in principle and that they have been applied in the best way possible. It also requires the researcher to provide evidence that inconsistencies in the data were dealt with. Transparency may be enhanced by describing the methods and data analysis in detail, which is sometimes known as 'thick description'.

Lincoln and Guba (*op. cit.*) suggest that there are four main issues which should be addressed in any systematic enquiry pertaining to social sciences. These qualities are referred to by different names in 'quantitative' and 'qualitative' traditions, represented in this table:

Issue	Terms used in quantitative tradition	Terms suggested for qualitative tradition
Truth Value	Internal Validity	Credibility
Applicability	External Validity	Transferability
Consistency	Reliability	Dependability
Neutrality	Objectivity	Confirmability

I therefore need to account for these qualities in this study.

Credibility

Internal validity, truth value or credibility is the most important characteristic of any research, and involves providing evidence that the information that has been collected can be recognised as a fair representation of things as the participants see them. According to Leininger (1994:105):

“Credibility refers to the ‘truth value’ or believability’ of the findings that have been established by the researcher through prolonged observations, engagements, or participation with informants or the situation in which cumulative knowing is the believable or lived-through experiences of those studies.”

To ensure that this characteristic was present in my research,

- (i) I tried to collect information in as many ways as possible, in particular by employing different methods for data collection;
- (ii) to ensure that I understood the language of the participants properly, I tried to learn their language by being with them as much as possible;
- (iii) during the analysis of the data, I tried to be as rigorous as possible in highlighting the differences and inconsistencies in opinions of various informants and in attempting to discover possible reasons for these differences;
- (iv) I continually exposed my analysis to my colleagues and supervisors, and this helped to identify errors and omissions at an early stage and to effect necessary remedial actions;

- (v) I tried to build rapport, trust and openness with the SpRs, so that they would feel free to express their feelings to me (Arksey and Knight, *op.cit.*);
- (vi) the questions asked in the questionnaire and interviews were derived from the study of the literature and from a continuous analysis of the data;
- (vii) I tried to ask questions (directly or indirectly) which covered all the issues raised by the research questions so that key aspects were not ignored.

However, Huberman and Miles (1998:198) argue that in qualitative studies the most vulnerable aspect is analytic validity. They suggest that analytic validity may be enhanced by avoiding certain common types of bias. According to them, the following are the most common shortcomings that require special attention:

- (i) Data overload in the field, leading to over-emphasis on some information while missing other important information.
- (ii) According importance to more visible information but omitting subtleties and nuances.
- (iii) Subconsciously cherry-picking or being overconfident in data that support certain key findings.
- (iv) Confusing co-occurrence as correlation or causal relationship.
- (v) The predicating of some data based on data already collected.
- (vi) Unreliability of information from some sources.
- (vii) Over-representing some information that directly challenges some tentative hypothesis.

I tried to avoid these shortcomings by analysing the data first by cross-examining for each participant and then by cross-case analysis from participant to participant. I have found that in-depth and cross-case analysis produces a better understanding of the data and brings into focus nuances and subtle differences and reasons for those differences.

However, Huberman and Miles (*ibid*:200) also suggest tactics for avoiding bias:

“The tactics meant to ward off the most obvious biases are the following: checking for representativeness, checking for researcher affects (reactivity), and triangulating and weighing the evidence (relying on the most robust measures). Tactics for testing the viability of patterns turn around the active search for contrasts, comparisons, outliers and extreme cases. More elaborate tests of conclusions call for attempts to rule out spurious conclusions, to replicate key findings, to check out rival explanations, and to look for negative evidence. Finally, feedback from informants can be used at any point in the cycle.”

I tried to use these tactics as much as I could within the limits of resources and time.

Transferability

Transferability means that the understanding generated by this study should be useful in other similar situations, but this raises the question of how to ascertain the similarity of a situation to which we want to transfer our understanding. As Firestone (1993:18) observes:

"While the transfer of findings from one case study to another is done by the reader, the researcher has the obligation to provide rich detailed and thick description about the case."

Moreover, since the topic of this research is embedded in the belief that knowledge is contextual, it is imperative for me to describe the context of this study in full detail so that future readers can compare it with their contexts before using the knowledge created by this study. The main context of this study, as discussed earlier, is the existing training and assessment system. I have studied and described the perceptions of the SpRs concerning this context, as discussed earlier. Some understanding of the general state of postgraduate medical education was gained by exploring the relevant literature, and specific details of the existing training and assessment system for medical education from undergraduate level to becoming a consultant is described in brief in Appendix no. (iii).

However, Marshall and Rossman (1999:193) emphasise the need for a detailed description of the theoretical framework on which the study is based. In their view, the findings of a study may be used to illuminate situations where the same theories are in use. PBA is underpinned principally by theories of ‘self-directed learning’ and ‘assessment for

learning'. I have therefore tried to explain these theories in the Chapters 2 and 3 respectively.

Dependability

This quality requires me to make my processes as transparent as possible so that readers can check that the processes followed are clear, correct and systematic. In other words, I have to provide a transparent account of my work. Arksey & Knight (*op. cit.*: 56) argue that:

".....there is no rule for judging, only the requirement that the researcher makes the research process transparent, being explicit about what was done and why."

Huberman and Miles (*op. cit.*: 200-203) suggest that the most effective technique for increasing transparency is to document as far as possible not only the data but also the steps followed in analysis. They even prescribe a detailed documentation form for this. However, they appreciate that detailed documentation may require unaffordable resources and hence should be used only in the case of high-stake studies. Moreover, too much systematic documentation may increase accessibility to data and may hamper its privacy, so there is a need to create a balance between transparency and privacy. They propose the describing following as the minimum conditions for transparency in most research:

- (i) sampling decisions made, both within and across cases;
- (ii) instrumentation and data collection operation;
- (iii) database summary: size, how produced;
- (iv) software used if any;
- (v) overview of analytic strategies followed;
- (vi) inclusion of key data displays supporting main conclusions;

I have attempted to describe these in this chapter and Chapter no. 5.

Confirmability

The concept of confirmability means that the study should be objective and free from the researcher's biases; in other words I should be neutral about the issue. But this is easier said than done, since if I am neutral, why I am interested?

I discussed this dilemma at the beginning of the chapter, and I have described my general ontological and epistemological beliefs, along with my experiences related to the field of study in Appendix no. (v). The purpose of this description is to enable readers of the study to be aware of any biases that might have affected my understanding of the situation. Another purpose was to bring my beliefs from a subconscious to a conscious level so that I was more aware of them and could distinguish between my views and the views of participants.

This issue of being objective again brings into focus the wider debate concerning subjectivity and objectivity, discussed above. The broad conclusion of that debate is that it is practically impossible to avoid subjectivity altogether, but that we should be aware of it and try to find out the reasons for subjectivity. Finally, one of the key purposes of most research in social sciences is to discover why different people belonging to the same context see reality in different ways.

In this chapter, the methodology used in this study, and the reasons for selecting it, have been discussed in detail. In the following chapter, data collected is analysed to make meaning out of it.

Chapter 5 Portfolio: A Learning Technique Haunted by Previous Experiences about Assessment.

5.0 Overview of Analysis

As discussed in the previous chapter on methodology, in order to understand effectiveness of the process of Portfolio-Based Assessment (PBA), the following five methods/tools were used in the sequence presented below.

Table 5.1
Details of the data collection methods and type of data collected

Sl. No.	Method/tool for data collection	Information expected from this method/tool and main purpose of seeking that information	Number of SpRs responded.
1	Questionnaire	Trainees’ perception about existing assessment system. This information was needed to understand the context (existing assessment system) in which PBA is introduced.	45
2	Questionnaire in the form of Likert Scale	Trainees’ disposition towards different components of training. This information was important to understand another context (system of learning or curriculum) in which PBA is introduced.	47
3	Non-directive Interviews	Trainees’ experiences of portfolio preparation. This information was required to comprehend the understanding of the trainees about PBA and to obtain further information required based on analysis of both questionnaires. Also to understand the compatibility of PBA with existing assessment and learning system (curriculum).	24
	Content Analysis of Portfolios	The extent of reflection in which trainees could engage themselves in the process of portfolio preparation.	24
5	Focused Interviews	To understand why trainees had not prepared and used the portfolio to the desired extent. Analysis of data collected from previous methods revealed that SpRs are not giving due attention to non-clinical component of training and they lack self-direction as learners. Therefore, these interviews also tried to explore the understanding of SpRs of professionalism.	16

As discussed in the previous chapter, sampling was not a major issue for both the questionnaires, since these were sent to all ninety SpRs attached to the Queen's School of Anaesthesia. Of these SpRs, a total of forty five replied to the first questionnaire and forty seven to the second questionnaire after one reminder. Since nearly fifty per cent of the SpRs responded, it can be assumed that an analysis of these questionnaires will represent the views of SpRs in general. In these questionnaires, the SpRs were not asked to reveal their identities since the main purpose of these was to understand the general perception of SpRs regarding assessment and the curriculum in which PBA is being introduced.

However, for the remaining three methods: non-directive interviews, content analysis of portfolios and focused interviews, it was necessary to apply sampling techniques, since it was not possible to interview all ninety SpRs. As discussed in the previous chapter, I used the principles of both representative sampling and theoretical sampling to the greatest possible extent for interviewing the SpRs. The purpose of representative sampling was to obtain the views of all groups of SpRs, that is, groups based on gender, ethnicity and seniority, while the aim of theoretical sampling was to accomplish saturation of the categories generated from an analysis of the initial interviews and new categories generated in subsequent interviews. After the non-directive interviews had been completed, I aimed to collect portfolios from the same SpRs who had been interviewed. As discussed in the previous chapter, for various reasons, portfolios could not be collected from all of the interviewed SpRs, while some other SpRs did provide their portfolios. Similarly, I could not conduct focused interviews with all of the SpRs who provided their portfolios. Table 5.2 lists the SpRs and the method/tool in which they contributed, along with their seniority, gender and ethnicity. In this table, the SpRs have been referred to by code numbers; the same code number is used in the analysis of all data produced

by all methods, so that the analysis of the views of the SpRs in both interviews and the content analysis of their portfolios can be correlated with one another. This table indicates that data from 35 SpRs were obtained. However, very few SpRs were associated with all three methods. For instance, of the 24 SpRs who provided their portfolios, only 7 gave both interviews, while 11 gave either a non-directive interview or a focused interview, and six did not take part in either interview. However, we were able to obtain some information from 35 out of 90 SpRs, regarding their disposition about portfolios, either from interviews or directly from their portfolios. The sample shown in the table can be considered adequate, especially in the light of the fact that interviews stopped yielding any new or different information. Moreover, the sample is reasonably representative in terms of seniority, gender and ethnicity for all the three methods, as shown in table 5.3.

Table 5.2: Details of the SpRs and their contribution in providing data

Code number of SpR	Seniority (SpR’s grade or year of specialist training)	Gender	Ethnicity	Gave non directive interview	Provided portfolio for content analysis	Gave focused interview
SpR no. 1	Grade 4	Male	British	Yes	Yes	No
SpR no. 2	Grade 2	Male	British	Yes	No	No
SpR no. 3	Grade 2	Male	British	Yes	No	No
SpR no 4	Grade 5	Female	British	Yes	Yes	No
SpR no 5	Grade 3	Female	British	Yes	No	No
SpR no 6	Grade 4	Male	Egyptian	Yes	No	No
SpR no 7	Grade 2	Male	British	Yes	Yes	Yes
SpR no 8	Grade 5	Female	British	Yes	No	No
SpR no 9	Grade 5	Male	British	Yes	No	No
SpR no 10	Grade 2	Male	British	Yes	Yes	Yes
SpR no 11	Grade 5	Male	British	Yes	Yes	Yes
SpR no 12	Grade 4	Male	British	Yes	Yes	Yes
SpR no 13	Grade 3	Female	British	Yes	Yes	Yes
SpR no 14	Grade 3	Female	Indian	Yes	No	No
SpR no 15	Grade 4	Female	British	Yes	Yes	Yes
SpR no 16	Grade 1	Male	British	Yes	No	Yes
SpR no 17	Grade 2	Female	British	Yes	No	No
SpR no 18	Grade 1	Male	Indian	Yes	No	Yes
SpR no 19	Grade 3	Female	Indian	Yes	Yes	No
SpR no 20	Grade 5	Male	Nepali	Yes	Yes	Yes
SpR no 21	Grade 2	Male	Indian	Yes	Yes	Yes
SpR no 22	Grade 3	Male	British	Yes	Yes	No
SpR no 23	Grade 1	Female	British	Yes	No	Yes
SpR no 24	Grade 3	Female	British	Yes	Yes	No
SpR no 25	Grade 4	Male	British	No	Yes	No
SpR no 26	Grade5	Male	British	No	Yes	Yes
SpR no 27	Grade 5	Male	Indian	No	Yes	Yes
SpR no 28	Grade 2	Male	British	No	Yes	Yes
SpR no 29	Grade 3	Male	British	No	Yes	Yes
SpR no 30	Grade 3	Male	Indian	No	Yes	Yes
SpR no 31	Grade 2	Male	British	No	Yes	No
SpR no 32	Grade 2	Male	S. African	No	Yes	No
SpR no 33	Grade 5	Male	British	No	Yes	No
SpR no 34	Grade 5	Male	British	No	Yes	No
SpR no 35	Grade 1	Male	British	No	Yes	No

Table 5.3

Break-up of respondents on the basis of gender, ethnicity and seniority

Method/tool for data collection	Total no. of respond ents	Brea-up on the basis of gender		Break-up on the basis of ethnicity		Break-up on the basis of seniority		
		Male	Female	British	Others	Grade 1 and 2	Grade 3 and 4	Grade 5
Non- directive interviews	24	14	10	18	6	9	10	5
Portfolios analysed	24	19	5	18	6	7	10	7
Focused interviews	16	13	3	11	5	7	5	4

- The analysis of all this data is presented in the following five sections:
- Section 5.1: Present assessment system at Queen’s School of Anaesthesia.
 - Section 5.2: Attitudes of trainees towards different components of training
 - Section 5.3: Perceptions of trainees regarding portfolio-based assessment
 - Section 5.4: Reluctantly completed portfolios
 - Section 5.5: Attitude of self-directed learning: an effect of PBA or a necessary condition for implementation of PBA?

The understanding which was derived from this analysis is discussed in the final and sixth chapter, entitled ‘Discussions and Conclusions’.

5.1 Present Assessment System at QSA

As discussed in previous chapters the intervention of Portfolio-Based Assessment (PBA) was carried out within an existing assessment system. The reaction of trainees towards PBA was therefore likely to be influenced by their perception of that system as well as by the way in which PBA fitted in or interacted with it. Broadfoot (1996) argues that it is not just the portfolio instrument itself but its embedding in a context of assessment that determines to a large extent how it will be used, what gains will be made from it and how its use will be sustained. Smith and Tillema (1998) also reported that the perception of trainees towards the portfolio depended to a great extent on their perception of assessment in general. Zeichner and Wray (2001:615) emphasise strongly that to improve the effectiveness of portfolios there must be an understanding of the context in which the portfolio is constructed and the purposes for which it is used. They argue:

“It makes little sense to talk about the consequences of teaching portfolios in general, without an understanding of the particular conditions under which they are constructed and the purposes towards which they are directed.”

This made it necessary to explore the trainees’ perceptions of the existing assessment system in order to determine the effectiveness of PBA at the Queen’s School of Anaesthesia and any associated problems and issues. For this purpose, trainees’ views were surveyed with the help of a questionnaire (please see Appendix no. vii). This questionnaire had four parts:

- (i) Part A (Content, Methods, Criteria and Standards of Assessment)
- (ii) Part B (Quality of Feedback Provided by Consultants during In-Training Assessment)
- (iii) Part C (Capability of Consultants to Assess Performance of SpRs)
- (iv) Part D (Overall Perception of SpRs regarding existing system)

This questionnaire was sent to 90 SpRs, of whom a total of 45 SpRs responded. The analysis of responses on a question by question basis is discussed below:

5.1.1 Part A: The Content Method, Criteria and Standards of Assessment

Importance of different purposes of assessment in the present system: (Question 1)

The effect of assessment on training and learning processes depends on the way it is carried out, which in turn depends on the purposes of assessment (Black and Wiliam, 1998). Assessment has been used for many purposes: namely, formative, summative, diagnostic and sometimes for administrative monitoring by controlling authorities. In most educational systems, assessment is used to serve all these purposes simultaneously (Gipps, 1994). Yet the emphasis placed on these purposes varies from one educational system to another. It was therefore important to understand the focus of the existing system of assessment at the QSA. The SpRs were asked to rate the different purposes of assessment according to their relative importance in the existing system, on a rating scale of 1 to 5, where 1 = not so important 5 = highly important. The trainees’ responses are shown in Table 5.1.1:

Table 5.1.1

Relative ratings provided by trainees for different purposes of assessment

Purpose of the assessment	No. of responses for each rating (on the 5 point rating scale, where 5 = highly important, 1 = least important and N.R. = No Response)					
	5	4	3	2	1	N.R.
To certify professional competence	12	18	12	0	3	
To provide feedback to trainees	13	19	6	4	3	
To provide feedback to consultants to improve their training strategies	6	12	12	10	4	1
To identify reasons for professional weakness	6	15	15	4	5	
To provide drill and practice for developing competence	1	7	11	15	10	1
To provide a comparison with peer group	2	6	18	9	10	

On the basis of these ratings provided by individual trainees, the average rating for each purpose was calculated. Table 5.1.2 shows these purposes in order of average ratings indicating the relative importance of each of these purposes.

Table 5.1. 2

Average rating showing relative importance of different purposes of assessment

Rank	Purpose of the assessment	Average Rating (on the scale of 1 to 5, where 5 = highly important)
i	To certify professional competence	3.80
ii	To provide feedback to trainees	3.78
iii	To identify reasons for professional weakness	3.29
iv	To provide feedback to consultants to improve their training strategies	3.14
v	To make comparison with peer group	2.58
vi	To provide drill and practice for developing competence	2.41

The above ratings show that the most important purposes are certification and feedback and the present system appears to accord equal importance to summative and formative purposes. At the level of postgraduate training, according to many reports (Department of Health, 1998; BMA, 1995; GMC, 1993), there is a need to accord more importance to formative assessment. Moreover, the distribution of the trainees' responses regarding the formative purpose is quite variable, since of 45 trainees, 19 gave ratings of 4, 6 rated it as 3 and 4 rated it as 2 (even if we ignore the lowest rating of 1 given by three SpRs). This indicates that either a considerable proportion of the trainees felt that not enough importance was given to providing feedback, or the SpRs themselves do not see formative assessment as important. This situation indicates that there is a need to improve the present system of formative assessment.

The average rating for the diagnostic purpose of assessment (namely, identifying reasons for professional weakness) is 3.29, which can also be improved upon. However, the rating of 3.14 for the purpose of 'providing feedback to consultants to improve their training strategies' is reasonable. It is worth noting that a much lower rating (2.58) is given to the purpose of comparing SpRs with each other. From this analysis, it can be inferred that the overall focus of the present assessment system is reasonably well distributed but needs to place more emphasis on the purpose of providing feedback.

Trainees were asked to mention other purposes served by the present assessment system.

The following purposes were mentioned:

- (i) Highlight strengths and weakness
- (ii) Provide an opportunity to discuss future training plan
- (iii) Control the profession politically
- (iv) Fulfil a college requirement

The first and second purposes are part of formative assessment, but the third purpose, namely ‘Control the profession politically’, needs to be evaluated in order to establish whether this is the perception of one single SpR or a widespread perception, since there exists a tension between the autonomy of the professions and their social accountability. As Schon (1983:4) points out:

“....there has been a disposition to blame the professions for their failure and a loss of faith in professional judgement. There have been strident public calls for external regulation of professional activity, efforts to create public organisations to protest and protect against professionally recommended policies.....”

while the perception that assessment is ultimately used for control was made by Murphy and Torrance (1988:9):

“....assessment is not necessarily bad, but every assessment initiative should be viewed with suspicion until it becomes clear what curricular or socio-political aims are embedded within it.”

Thus if most SpRs believe that control is a hidden agenda they will regard the present assessment system with suspicion and, in that case, it will be very difficult to expect a true reflection or self-assessment in their portfolios. Similarly, the fourth purpose, to ‘fulfil a college requirement’ indicates feelings that assessment is basically meant to show society and the medical community that the college is maintaining the standards. If this is a subsidiary purpose it is not harmful, but if trainees perceive it as the main purpose, then they are likely to deal with assessment as an unnecessary evil or burden (Broadfoot, 1996). Therefore during interviews these apprehensions and their effects if any would be further explored.

SpRs’ perception of the relative importance of different global and generic competencies (Question 2)

To understand the trainees’ perceptions regarding different global and generic competencies, the SpRs were asked what relative importance should be accorded to assessing these competencies on a rating scale of 1 to 5, where 1 = not so important, 5 =

highly important, and N.R. indicates ‘No Response’. The trainees’ responses are shown in Table 5.1. 3.

Competencies are arranged in the order of average ratings received. Table 5.1.4 shows competencies in order of importance.

Table 5.1.3

SpRs’ perception of relative importance of different competencies to be assessed

Sl. No.	Competencies to be assessed	5	4	3	2	1	N.R.
1	Clinical Understanding	28	16	1	0	0	
2	Ability to judge the condition of patient	42	3	0	0	0	
3	Ability to formulate and implement the plan for anaesthesia	40	5	0	0	0	
4	Practical skills for administration of anaesthesia	34	9	2	0	0	
5	Ability to manage an emergency situation	41	4	0	0	0	
6	Ability to teach	1	23	20	1	0	
7	Understanding of research methods	1	12	20	9	3	
8	Understanding of clinical auditing process	1	19	19	4	2	
9	Working as a member of a team	18	25	1	1	0	
10	Leadership qualities	9	28	8	0	0	
11	Concern for Ethics	8	22	12	2	0	1
12	Learning to Learn	13	15	14	2	1	
13	Communication with patients and other staff	24	19	2	0	0	
14	Willingness to work hard	10	28	5	1	1	

Table 5.1.4

Ranking of competencies on the basis of the importance accorded them by SpRs

Rank	Competencies to be assessed	Average Rating on the scale of 1 to 5, where 5 = highly important
1	Ability to judge the condition of patient	4.93
2	Ability to manage an emergency situation	4.91
3	Ability to formulate and implement the plan for anaesthesia	4.89
4	Practical skills for administration of anaesthesia	4.71
5	Clinical Understanding	4.60
6	Communication with patients and other staff	4.49
7	Working as a member in a team	4.33
8	Leadership qualities	4.02
9	Willingness to work hard	4.00
10	Concern for Ethics	3.82
11	Learning to Learn	3.82
12	Ability to teach	3.53
13	Understanding of clinical audit process	3.29
14	Understanding of research methods	2.98

It is worth noting that the trainees ranked these competencies in such a way that all clinical competencies had the highest ratings (ranks 1 to 5), followed by competencies related to personality traits (ranks 6 to 11) and lastly the non-clinical competencies (ranks 12 to 14), thereby forming three distinct groups, as below:

Global Clinical Competencies (in order of ranking)

- 1. Ability to judge the condition of patient
- 2. Ability to manage an emergency situation
- 3. Ability to formulate and implement the plan for anaesthesia
- 4. Practical skills for administration of anaesthesia
- 5. Clinical understanding

Competencies related to personality traits (in order of ranking)

- 6. Communication skills
- 7. Working as team member
- 8. Leadership qualities

9. Willingness to work hard
10. Concern for ethics
11. Learning to learn

Non-Clinical Competencies (in order of ranking)

12. Ability to teach
13. Abilities to conduct medical audit
14. Understanding of research methods

It is clear that non-clinical abilities were the lowest priority for the SpRs. The purpose of rating these competencies was not to determine the order of their relative importance, since every competency plays a role in the profession. Instead the purpose was to understand that how much importance the SpRs attach to non-clinical competencies compared to other competencies. The apprehension of the Director of School that non-clinical activities are not given due importance by SpRs seems to be confirmed by the above analysis. This finding is important for this research since PBA had been introduced at the QSA in the hope that it might help to increase the amount of attention paid by SpRs to the non-clinical components of training. Yet, from the above data, it seems that there is virtual unanimity amongst SpRs about priorities. This indicates that rankings may reflect the realities of their job requirements and may be rooted in the context of their working environment and hence are not irrational. However, it is important to understand the reasons for this and to explore this issue in interviews.

Further discussion with the Director of School confirmed that the ranking of competencies within the groups generally correlates to the amount and type of work done by most SpRs. He confirmed that the relative importance given to different non-clinical activities also correlates with the extent to which SpRs are supposed to engage in these activities. For example, teaching juniors is the most frequently engaged in non-clinical activity, followed

by engaging in medical audit. Very few SpRs engage in research and even after becoming a consultant, most are supposed to do teaching and audit but research is not mandatory. So, it is natural that amongst non-clinical competencies, the ability to teach has received highest rating (3.53), followed by understanding medical audit procedures (3.29) and understanding methods of research (2.98).

The same is true for the relative importance accorded to competencies related to personality traits, as can be seen from Table 5.1 4. However, the ability of 'learning to learn' received the lowest rating among these competencies. One reason seems to be that trainees do not have much awareness of the importance of 'learning to learn'. Other personality-related traits, such as communication skills, working as a part of a team, leadership qualities and concern for ethics, are highlighted in the curriculum and discussed with SpRs during training. In contrast, 'learning to learn' was introduced only recently and is not talked about explicitly (NHS Executive, 2000). Yet for continuous professional development, 'learning to learn' is considered a key competency (Bligh, 1999), and hence the portfolio, which is considered a tool to promote self-directed learning, becomes important in this situation (Borko *et al.*, 1997).

In the questionnaire, the SpRs were also asked to write down other global competencies they felt were important. Some SpRs suggested that the following should also be assessed:

- (i) flexibility;
- (ii) willingness to learn;
- (iii) patience and calmness;
- (iv) form-filling;

Of these competencies, the first three seem to be important for medical professionals. However, these are not highlighted in the literature related to medical training and education, perhaps because calmness, patience, willingness to learn and flexibility are

innate personal traits and therefore difficult to develop over the short duration of formal training. Moreover, these traits are not considered in the portfolio in this study, and so although training and education should perhaps develop these traits, this study does not encompass this issue.

The competency of ‘filling forms’ is perhaps a sarcastic comment on the numerous forms required for RITA (Record of In-Training Assessment) and Appraisal process.

The extent to which different global or generic competencies are assessed in the existing assessment system (Question 3)

To understand the trainees’ perceptions of the extent to which different competencies are assessed, they were asked to rate them on a three-point scale: ‘under-assessed’, ‘sufficiently assessed’ and ‘over-assessed’.

Their responses are shown in Table 5.1.5. This table suggests that the majority of SpRs saw some competencies as sufficiently assessed while others were seen as under-assessed. Very few SpRs indicated that competencies were over-assessed. Since these competencies were formatively assessed, it may be inferred that there is a general need for more formative assessment in postgraduate training. This finding contradicts the widely held view that there is more formative assessment than needed (Race, 1998).

If we analyse these competencies according to the groupings made in the previous section, it can be seen that the majority of SpRs saw all clinical competencies as sufficiently assessed, while non-clinical competencies and personality-related competencies were under-assessed. Table 5.1.6 shows the percentage who saw these competencies as under-assessed:

Table 5.1. 5

Trainees' perceptions of the extent to which different competencies are assessed.

Sl. No.	Competencies to be assessed	Under-assessed	Sufficiently assessed	Over-assessed	No Response
1	Clinical Understanding	17	25	1	2
2	Ability to judge the condition of patient	13	29	1	2
3	Ability to formulate and implement the plan for anaesthesia	7	34	1	3
4	Practical skills for administration of anaesthesia	6	36	1	2
5	Ability to manage an emergency situation	19	23	1	2
6	Ability to teach	37	4	2	2
7	Understanding of research methods	36	6	1	2
8	Understanding Clinical Auditing Process	29	12	2	2
9	Working as a member of a team	11	31	1	2
10	Leadership qualities	20	20	2	3
11	Concern for Ethics	36	7	0	2
12	Learning to Learn	33	9	0	3
13	Communication with patients and other staff	16	26	1	2
14	Willingness to work hard		38	4	1

Table 5.1.6

Perceptions of the SpRs regarding the under-assessed competencies

Sl. No.	Competency	No. of SpRs who indicated competency is under-assessed	Percentage of responses
1	Ability to teach	37 out of 43	86%
2	Understanding of research methods	36 out of 43	83.7%
3	Understanding Clinical Auditing Process	29 out 43	67.44%
4	Concern for Ethics	36 out of 43	83.7%
5	Learning to Learn	33 out of 42	78.6%
6	Leadership qualities	20 out of 42	47.61%
7	Communication with patients and other staff	16 out of 42	38.1%
8	Working as a member of a team	11 out of 43	25.6%
9	Willingness to work hard	0 out of 42	0%

It is clear that with the exception of ‘willingness to work hard’, all other personality-related competencies and non-clinical competencies were under-assessed formatively, according to a considerable percentage of SpRs. This highlights the need for more formative assessment in these areas since these findings are the recommendation of SpRs and not tutors or trainers. There is thus a high probability that appropriate assessment would be well received by the SpRs. It is also worth noting that although the SpRs did not consider non-clinical competencies and personality-related competencies equally important to the clinical competencies, they still felt a need for adequate assessment of these competencies. This finding also confirms the need expressed by different reports for an emphasis on the assessment of these competencies (BMA, 1995; GMC, 1993). ‘Learning outcomes’ decided by the Scottish Deans Medical Curriculum Group (2000) and the ‘Six Year Clinical Curriculum for Anaesthesia’, developed by the Northern School of Anaesthesia (1996), also emphasise the development and assessment of these competencies. As for ‘willingness to work hard’, no SpR felt this was under-assessed, perhaps because they already had enough work and yet they were still receiving comments from college tutors that they could do more.

Suitability of different people to carry out formative assessment: (Question 4)

Different groups in hospitals can assess SpRs formatively, including consultants, SpRs themselves, peers, other medical staff and patients. To explore the perceptions of SpRs regarding the relative suitability of these groups for assessing their clinical performance, they were asked to rate them on a rating scale of 1 to 5, where 1 = not so important and 5 = highly important. Their responses are shown in Table 5.1.7.

Table 5.1.7

SpRs’ perceptions of the suitability of different groups of people for formative assessment

Sl. No.	Group of people (for assessing the SpRs)	5	4	3	2	1	N.R.	weighted average rating
1	Consultants	23	18	3	0	0	1	4.45
2	SpRs themselves	20	20	5	0	0	0	4.3
3	Peers (other SpRs)	3	6	19	10	7	0	2.73
4	ODAs, recovery nurses and other paramedical staff	10	10	20	4	1	0	3.53
5	Patients	11	11	13	9	1	0	3.49

It is evident that most SpRs had faith in the suitability of their consultants, as well as themselves, for assessing their clinical performance. It is worth noting that the average weighted rating is 4.45 for consultants and 4.33 for SpRs themselves. Moreover, no SpR gave a rating of 1 or 2 for these groups, indicating a relatively strong convergence in the views of SpRs.

It is normal for consultants to have the highest rating for this purpose, mainly because they are more experienced and knowledgeable than SpRs. But Rhoton (1994) and Stern (1998) argue that feedback from consultants has its own limitations, as normally they give frank comments on clinical skills, but avoid giving negative feedback about interpersonal skills. Phelan (1993) and Burack (1999) found that in the current system, many students who behave unprofessionally either do not receive feedback or receive indirect or mild feedback, resulting in the learners’ belief that their behaviour is within permissible limits. So they suggest that trainees’ assessment should not depend solely on consultants.

However, from the point of view of PBA, the most important finding is that SpRs also consider themselves suitable for carrying out formative assessment. This finding suggests that trainees would perhaps have a positive attitude towards self-assessment schemes such as PBA.

Surprisingly, peers were rated lowest, below patients and other medical staff (2.73), perhaps because SpRs did not have faith in each other due to feelings of competition. However, analysis of the interviews revealed that this was not the sole reason, because in the speciality of anaesthesia, SpRs rarely work together: most of the time, they work in a team with surgeons or physicians from other specialities and hence have few chances to assess each other's performances formatively. However, since they could not observe each other working, they could share their written experiences with each other and a portfolio might prove helpful for this. Yet there is a debate about the appropriateness of peer assessment: Thomas *et al.* (1999) found that peers were able to judge each other properly in interpersonal skills, while Arnold *et al.* (1981) and Ramsey *et al.* (1996) report that in cases of assessment by peers, assessment of performance in one dimension was influenced by assessment in another dimension.

The average weighted rating given to other medical staff, namely ODAs, recovery nurses and paramedical staff, is 3.53. Similarly, the average weighted rating given to patients for this purpose is 3.49. These ratings correlate with data from the interviews, where some SpRs stated that other medical staff and patients have good intentions but that patients are not knowledgeable enough to assess SpRs except in behavioural traits. Moreover, Newble *et al.* (1994) and Wooliscroft (1994) argue that different patients have different standards and criteria for assessing behaviour and hence observations from a large number of patients should be used in order to form some opinion about a trainee doctor's behaviour. As far as supporting medical staff are concerned, the SpRs pointed out in their interviews that they

were knowledgeable enough to provide feedback in certain technical areas apart from behavioural areas, but the problem was that they rarely provided negative feedback, perhaps because of the hierarchical relationship between SpRs and supporting staff.

Van Lujik *et al.* (2000), conclude that each group has its own limitations and so many observations by different groups are required for a valid assessment of professional behaviour. However, Rezer *et al.* (1992) and Ginsburg *et al.* (2000) argue that professional behaviour is highly dependent on the context in which it occurs and so any general comment on personality traits should be avoided. Instead, feedback to trainees should be limited to their behaviour in a particular context. This highlights the need for professionals to take the initiative to request feedback from different groups on different occasions and then take corrective action in their behaviour. This is important, since nobody other than the practitioner himself/herself knows the whole context in which action has taken place (Schon, 1983). The data above indicate that the SpRs also consider self-assessment to be nearly as important as assessment by consultants and so it may be inferred that a portfolio which promotes self-assessment in different contexts may prove helpful.

Suitability of different methods for formative assessment: (Question 5)

To understand the perception of the SpRs regarding different methods for the formative assessment of their clinical competence, they were asked to rate them on a scale of 1 to 5, where 1 = not so important and 5 = highly important. A summary of their responses is given in Table 5.1.8.

Table 5.1.8

Perception of SpRs regarding suitability of different methods for formative assessment

S. No.	Method of Assessment	5	4	3	2	1	N.R.	weighted average rating
1	Opinion of consultants	8	22	14	0	1	0	3.8
2	OSCE (Objective Structured Clinical Examination)	1	13	19	7	5	0	2.96
3	MCQs (Multiple Choice Questions)	1	6	8	18	12	0	2.24
4	Essay Questions	1	7	12	15	9	0	2.45
5	Logbook Records	1	4	13	13	14	0	2.22

As expected, the opinions of consultants received the highest rating (3.8), perhaps because consultants assess SpRs in real-life situations. Similarly, in OSCE (Objective Structured Clinical Examination) a real-life situation is simulated, and this received the second highest rating (2.96). All other assessment methods received considerably lower ratings. The reason for the low rating for MCQs (Multiple Choice Questions) and Essay Questions could be that they are really only able to assess theoretical knowledge and not the whole performance of the SpRs. The Director of School also pointed out that these methods were used only sparingly for formative assessment. However, they were used in the primary and final parts of the royal college examinations, which assess theory summatively.

The most surprising finding at this point of the study, however is that the SpRs saw logbooks as the least suitable assessment tool, with the lowest rating (2.22). The reason for this might be the belief of a considerable number of SpRs, revealed during interviews, that the logbook records only the number of times a procedure has been performed and that carrying out a procedure a number of times is not a guarantee of competence in that procedure. However, they felt that the logbook in conjunction with the opinions of consultants is a good method of formative assessment.

These initial findings have important implications for this research study. These indicate that SpRs were not fully satisfied with any of the existing methods of formative assessment (even the opinions of consultants did not receive a rating of more than 4 out of 5). It can therefore be inferred that either existing assessment methods should be improved or new, more appropriate methods should be introduced. During the interviews, the SpRs offered some suggestions as to how to improve the effectiveness of consultants’ reports: these are discussed in the analysis of interview data. PBA was introduced in the hope that it would be able to fill gaps in the existing assessment system. An analysis of the effectiveness of PBA is the main aim of this study, based on interviews with the SpRs and a content analysis of their portfolios.

Awareness of trainees about the criteria used for assessment: (Question 6)

As discussed in Chapter 3, the proper implementation of any assessment scheme requires that assessor and assessed both have a clear understanding of the criteria against which assessment is carried out. Ecclestone (1999a: 382) also suggests:

“Research into assessment has shown that students must internalise notions of standards and criteria if they are to take responsibility for improving their work.”

A question was therefore asked which was designed to explore the SpRs’ understanding of the criteria used for assessment on a rating scale of 1 to 4, where 1 = I do not understand, 2 = I have some idea, 3 = I am fairly sure and 4 = I fully understand them. The responses of the trainees are summarised in Table 5.1.9:

Table 5.1.9
Trainees’ awareness of the criteria used for assessment

Sl. No.	Details of the criteria	4	3	2	1	N.R.	weighted average rating
1	The criteria on which you are being assessed	4	17	16	7	1	2.27
2	The relative importance attached to each criterion	2	7	22	13	1	2.18
3	The standards of performance expected for each criterion	3	13	18	10	1	2.22

Two observations can be made from this:

- (i) The trainees appeared to have highly divergent understandings of the criteria, evident from the wide distribution of their responses.
- (ii) The weighted average rating for all three points: namely, ‘understanding of criteria’, ‘relative importance of each criterion’ and ‘standards of performance for each criterion’, is nearly 2, (here, 2 indicates ‘I have some idea’). It can therefore be inferred that most trainees had only a limited or vague understanding of the criteria, their relative importance and standards of performance required to satisfy each criterion.

These observations indicate that the mechanisms for informing SpRs about the criteria for formative assessment were not sufficiently effective. Discussion with the Director of School revealed that these criteria are mentioned in detail in the official specification of the curriculum, and expected standards of performance are communicated by consultants during performances. In order to make trainees better self-directed learners, it is important that they understand the criteria for assessment and then apply them in order to assess and improve their own performances. Yet this is easier said than done since it is very difficult to make explicit and transparent criteria and standards for performance, especially in the complex context of medicine (Searle, 2000; Cusimano, 1996). Moreover, it is not feasible to lay down the criteria for each and every case, since in medicine each patient has his or her own context and is treated accordingly. In practice, sometimes professionals have to fix their own criteria and standards, depending upon the demands of the situation and then strive to achieve those standards. Eraut (1994: 212) argues:

“....there is no standard version of what professional work entails which can serve as single point of reference. The variation in work and in working practice between one job context and another can be quite important. Hence compromises and judgements have to be made about precisely what would be taken as standard....”

It seems that in order to become self-directed learners it is important for the trainees to learn to decide on their own criteria and standards as well as to grapple with the expected standards of the profession (Heron, 1995:86-7). This is also one of the intended purposes of PBA.

5.1.2 Part B: Quality of the Feedback Provided by the Consultants during In-Training Assessment

Discussions with the Director of School highlighted the fact that formal reports by consultants about SpRs’ performances were used as the main input to the RITA, while consultants provided informal feedback to SpRs during day-to-day working to improve their performance. This means that the consultants’ reports and feedback were the most important component for summative and formative assessment respectively. It was therefore necessary to understand the SpRs’ perceptions of the quality of consultants’ feedback. Different questions related to quality of feedback and the SpRs’ corresponding responses are shown in Tables 5.1.10 to 5.1.16 and are discussed below.

Nature of the feedback given by consultants (Question 8)

The SpRs were asked about the nature of the consultants’ feedback in relation to four categories: namely, ‘precise in nearly all cases’, ‘precise in most cases’, ‘general in most cases’ and ‘general in nearly all cases’. The SpRs responses are shown in Table 5.1.10

Table 5.1.10
Trainees’ perceptions of the nature of consultants’ feedback

	Precise in nearly all cases	Precise in most cases	General in most cases	General in nearly all cases	No Response
No. of responses about ‘nature of consultants’ feedback’	00	9	21	12	3
Percentage of total (42) responses	0%	21.4%	50%	28.6%	

Analysis shows that only 21.4% of SpRs considered feedback to be precise, while a considerable majority (78.6%) felt that it was general in nature. If feedback is general, SpRs may not be able to learn much from it and this raises questions about the need for training so that consultants can provide more focused feedback. In a training needs analysis of consultants, Durguerian *et al.* (2000) found that they need training in assessing SpRs.

The accuracy of the feedback (Question 8)

The SpRs’ perceptions regarding the accuracy of the consultants’ feedback was obtained by asking for their responses against four categories: ‘Always correct’, ‘often correct’, ‘sometimes correct’ and ‘rarely correct’. The SpRs’ responses are shown in Table 5.1.11.

Table 5.1. 11
SpRs’ perceptions regarding the accuracy of the consultants’ feedback

	Always Correct	Often correct	Some times correct	Rarely correct	No Response
No. of responses against the ‘accuracy of consultants’ feedback’	00	29	13	1	2
Percentage of total responses	0%	67.5%	30.2%	2.3%	

Table 5.1.11 shows that the majority of the SpRs (67.5%) felt that feedback was for the most part accurate. However, a considerable proportion (30.2+ 2.3 = 32.5%) felt that it was correct only sometimes or rarely and none said that it was always correct. It is difficult to say whether this group of SpRs was correct, or their consultants were correct, or both groups were correct! Further research is required to study this issue. The differences of opinion between SpR and consultant may be because medical decision making is so complex and affected by so many uncertainties that a problem may be handled using different but equally acceptable methods (Eddy, 1996). Moreover, the issue of accuracy of feedback on practice has an epistemological angle to it since everyone sees the problem

from his/her position and hence feedback is always situated and needs constructing (Holstein and Gubrium, 1998). In other words, no feedback is ever understood fully in the same sense in which it was provided. It is therefore not enough merely to provide the feedback; following it up with discussion may improve the understanding of it.

The frequency of providing feedback on time in order for SpRs to make use of it (Questions 9 and 10)

Any feedback is most useful and effective if it is provided just after the performance; delay reduces its effectiveness (Mets, 2003). The SpRs’ responses regarding the frequency with which feedback was provided within a reasonable time to make use of it are shown in Table 5.1.12.

Table 5.1. 12
SpRs’ perceptions of the frequency of providing feedback within a reasonable time

	Always	Often	Some times	Rarely	No Response
No. of responses against ‘frequency of providing feedback within a reasonable time’	00	6	17	22	0
Percentage of total responses	0%	13.3%	37.8%	48.9%	

This table shows that only 37.8% of SpRs believed that sometimes they received feedback within a reasonable time to make use of it and that 48.9% thought it was rarely in time. Only 13.3% of SpRs felt that they often got the feedback in time. The next table shows the time gap between performance and feedback.

Table 5.1.13

SpRs' perception of the time gap between working and receiving the feedback

	Same day we worked together	Within a fortnight	At the end of hospital attachment	After leaving the hospital	No Response
No of responses against 'time gap after which feedback is received'	03	4	30	06	2
Percentage of total responses	6.9%	9.3%	69.8%	14%	

This table clearly shows that the majority of SpRs (69.8%) received the feedback at the end of their hospital attachment. In the case of 14% of SpRs, feedback arrived after they had left the hospital. This reduces the effectiveness of the feedback, since when SpRs change hospital, the speciality in which they work also changes and there remains very little scope for using the feedback. Many SpRs also expressed this view in interviews and suggested that consultants should give an interim report after the first half period of an attachment so that remedial action may be taken in the second half.

The effectiveness of feedback in explaining reasons for professional weakness (Question 11)

The SpRs' perceptions of the extent to which the feedback was effective in highlighting the reasons for their professional weakness were obtained using a four-point rating scale, and are presented in Table 5.1.14.

Table 5.1.14

SpRs' perception regarding the extent to which the feedback is effective

	To a great extent	To a considerable extent	To some extent	To a negligible extent	No Response
No. of responses against 'The extent to which the feedback is effective'	01	11	26	06	1
Percentage of total responses	2.3%	25%	59.1%	13.6%	

This table shows a wide variation in the SpRs’ views regarding the effectiveness of feedback in identifying the causes of their weaknesses, as most (59.1%) felt that it was effective to some extent, 13.6% felt that it was to a negligible extent, and 25% felt that it was to a considerable extent. This wide variation can perhaps be attributed in part to the personal qualities of the SpRs in relation to how they reflect on feedback. This issue is a complex one and requires separate research. However, if this table (Table 5.1.14) is compared with Table 5.1.10, showing the SpRs’ views on the nature of feedback, it can be seen that the distribution of responses in both tables is similar. It is possible to infer that the percentage of SpRs (21.42%) who felt that the nature of feedback was precise and that percentage of SpRs (25%) who felt that the feedback helped to identify the causes of their weakness is about the same. Similarly, the percentage of SpRs (50%) who felt that the nature of feedback was general in most cases is close to the percentage of SpRs (59.1%) who felt that feedback was able to identify the causes of their weaknesses only to some extent. So a comparison of Tables 5.1.10 and 5.1.14 shows that the more precise the feedback, the better it can communicate reasons for weakness to the trainees.

Effectiveness of feedback in different aspects of the training (Question 12)

Feedback which is effective in one aspect of learning may not be so effective in other aspects. The SpRs were therefore asked how feedback about their performance affected their approach to different aspects of learning, by rating these aspects on a scale of 1 to 4. The responses of the SpRs are presented in Table 5.1.15.

Table 5.1.15

SpRs' perception about the effectiveness of the feedback

Statement about effect of feedback on different aspects of learning	To a great extent (weight:4)	To a considerable extent (weight: 3)	To some extent (weight:2)	To a negligible extent (weight:1)	No response	Weighted average on the scale of 1 to 4
It directs future learning in areas of shortcomings	5	21	15	3	1	2.64
It makes them think about clinical skills	4	19	14	7	1	2.45
It makes them think about procedural skills	4	16	16	8	1	2.36
It makes them think about behaviour	3	21	13	6	2	2.43
It has no effect on approaches to learning	4	3	9	27	2	1.59

It can be seen that feedback was most effective in directing the focus of training in the areas in which trainees were weak, as this received the highest rating (2.64 on the scale of 1 to 4). In other words, feedback was effective for the overall planning of learning. But in general feedback was not as effective as it should have been as for 'clinical skills' 'procedural skills' and 'behavioural skills' the average ratings were 2.45, 2.36 and 2.43 respectively. The lesser effectiveness of the feedback may be attributed to the fact that the nature of the feedback provided to the SpRs was general in most cases, as shown in Table 5.1.10. Tillema and Smith (2000:206) found in their study that:

“The performance focus in feedback delivery conveys the importance of an in-depth orientation towards, and alignment with, the students’ work-related interests (i.e., toward what has been actually been done).it is the nature of the feedback that seems crucial for its acceptance and use. Rather than reflecting on a subject-matter orientation, feedback has to relate to what has been accomplished.”

From the above discussion, it may be concluded that the existing formative assessment system was effective to a considerable extent but that there was a need either to improve present techniques of formative assessment or to try other methods to make feedback more specific. Thus it may be said that the introduction of PBA was a timely intervention in the context of the QSA, since it would provide an opportunity for self-feedback in a continuous, non-threatening way (Redman, 1994).

5.1.3 Part C: The Capability of Consultants to Assess SpRs’ Performance

The extent to which the trainees value feedback may depend on the quality of the feedback, as well as on their faith in the capabilities of those assessing them. In the case of the SpRs, consultants were the main assessors and so questions were designed to understand their perception of consultants’ clinical and educational capabilities, their focus of assessment and the way they provided the feedback.

Extent to which consultants value various qualities in the SpRs (Question 13)

Self-direction, co-operative learning and reflection on self-performances are three important qualities needed for lifelong self-learning (Maudsley and Strivens, 2000; McCotter, 2001), and so SpRs were asked about the extent to which consultants value these qualities.

Table 5.1.16
SpRs’ perception of the qualities valued by consultants

Qualities Consultants Value in SpRs	To a great extent (weight:4)	To a considerable extent (weight:3)	To some extent (weight:2)	To a negligible extent (weight:1)	No response	Weighted average on the scale of 1 to 4
Self-direction	10	18	12	3	2	2.81
Co-operative learning	3	22	9	9	2	2.44
Reflection on self-performance	2	14	14	13	2	2.11

The weighted average rating for ‘self-directed learning’ is 2.81, suggesting that most SpRs felt that consultants valued this quality to a considerable extent. However, consultants were seen to value ‘reflection on self-performance’ only to some extent. This indicates that consultants did not try enough to foster a habit of reflection in the SpRs. There may be two reasons for this, either a genuine lack of time or because a consultant might not have deemed it important for SpRs to reflect on individual performances. This finding is significant from the point of view of PBA, since its success depends on reflection on individual performances being important in the eyes of consultants and also on its being accorded a high enough priority so that time is set aside for it.

The extent to which consultants value the views of the SpRs on the grades and feedback given by them to SpRs (Question 14)

In an inclusive and participative assessment system, assessors are supposed to discuss criteria, methods, standards and the results of assessment with the assessed (Boud, 1997). The SpRs were therefore asked to what extent consultants valued their views on the grades and feedback given by them to the SpRs. Their responses are presented in the following table.

Table 5.1.17

SpRs’ perceptions regarding the value consultants give to their views about grades and feedback

	To great extent	To a considerable extent	To some extent	To a negligible extent	No Response
No of responses against ‘value consultants give to SpRs’ opinion’	0	1	27	14	3
Percentage of total responses	0%	2.4%	64.3%	33.3 %	

This table indicates that the SpRs believed that their opinions on the feedback and grades given to them were generally not valued by consultants. 64.3% of SpRs felt that

consultants valued their opinion to some extent while 33.3% felt that the consultants valued their opinion to a negligible extent. This means that, in total, 97.6% of the SpRs felt that the consultants did not value their views very much. This indicates that the existing feedback system was highly consultant-centred. It was therefore not surprising that during the interviews about portfolios some SpRs expressed their unhappiness with the fact that consultant reports offered only one side of the story, and that with the help of portfolio, they could also offer their own opinions about themselves. The SpRs also pointed out that consultants rarely discussed the reports given by them for the RITA. Thus at the QSA, the SpRs had an unfulfilled desire to become more involved in their assessment process. Wolf *et al.* (1991:59) argue that trainees’ involvement in their assessment is required from the point of view of lifelong learning:

“..if students are going to leave school as competent assessors of their own work, they deserve sustained opportunities to internalise standards and ways of questioning and improving the quality of their work.”

How often consultants have enough experience of SpRs’ work before providing feedback (Question 15)

An examination of the SpRs’ working conditions revealed that they work with a number of different consultants (see Appendix nos. ii and iii). A question was asked about whether or not consultants have enough exposure to the work of the SpRs before they give feedback. The responses of the SpRs are presented in Table 5.1.18.

Table 5.1.18
SpRs’ perceptions of exposure of their work to the consultants

	Often	Some times	Rarely	Never	No Response
No of responses against ‘consultants have sufficient exposure to their work’	5	24	14	1	1
Percentage of total responses	11.4%	54.5%	31.8%	2.3%	

Analysis indicates that 54.5% felt that the consultants had enough exposure to their work, while 31.8% felt that this was rarely the case. Thus 86.3% of SpRs were not satisfied in this regard. During interviews, the SpRs revealed that in years 3 to 5 of their training, they work for a long time without any supervision and consultants have very little opportunity to observe them working, yet must still provide reports about their performance. Most SpRs were disappointed with this situation. This finding reveals a point of concern with the existing assessment system, since consultants' reports were considered to be the backbone of formative as well as summative assessment: if these were prepared without enough exposure, then the credibility and validity of assessment became doubtful.

This finding also points to a genuine problem in the assessment of learning by others in higher professional education, since it is not practically possible always for a consultant to supervise SpRs because both of them are needed in different places owing to factors such as a shortage of doctors. One possibility in such a situation is to train the SpRs to assess themselves.

Clinical competence of consultants (Question 16)

One factor which may affect the quality of the feedback is the clinical competence of the consultants. Although it is rare for consultants not to be sufficiently clinical competent, the SpRs' perception of them is important because if the SpRs do not hold them in high esteem, it might affect the way they receive feedback from consultants. Table 5.1.19 depicts the responses of the SpRs.

Table 5.1.19

SpRs’ perceptions of the clinical competence of the consultants

	Nearly all consultants are competent	Most consultants are competent	Some consultants are competent	Few consultants are competent	No Response
No. of responses against ‘Clinical competence of the consultants’	9	21	11	4	0
Percentage of total responses	20%	46.7%	24.4%	8.9%	

As expected, the majority of SpRs felt that consultants had adequate clinical competence to assess their performance. However, a significant proportion of SpRs ($24.4 + 8.9 = 33.3\%$) was not satisfied. It is worth noting from Table 5.1.11 that 32.5% of SpRs felt that the feedback provided by most consultants was inaccurate. Thus, the same proportion of SpRs who believed that most consultants were not sufficiently competent also felt that feedback was not often accurate.

It is beyond the scope of this research to determine whether such a high proportion of consultants (33.3%) were not competent, whether 33.3% of the SpRs were wrong in their judgement of the capability of their consultants. However, it can be inferred that a large proportion of SpRs did not have faith in clinical competence of the consultants, which is an alarming situation. Perhaps more discussions between the SpRs consultants about assessment would reduce such misunderstandings.

Competency of consultants in assessment techniques (Question 17)

Apart from the clinical competence of the consultants, the other important factors which may affect the quality of assessment, are the consultants’ knowledge and skills. The SpRs’ perceptions regarding this competency are presented in Table 5.1.20.

Table 5.1.20

SpRs’ perceptions of competency of consultants in assessment techniques

	To a great extent	To a considerable extent	To some extent	To a negligible extent	No Response
No. of responses for Consultants’ competence in assessment	1	6	32	4	2
Percentage of total responses	2.3%	14%	74.4 %	9.3%	

This shows that a substantial majority of the SpRs ($74.4 + 9.3 = 83.7\%$) felt that most consultants were not competent in assessment techniques. This highlights the need for training consultants in assessment issues and techniques on the one hand and for more interactions between SpRs and consultants about assessment, on the other hand. Moreover, it can be suggested that SpRs should also be educated about issues related to assessment since they themselves will be consultants in the future and will assess other SpRs. A knowledge of principles and methods of assessment would also help the SpRs in self-assessment.

Effect of qualities other than professional ones on assessment (Question 18)

During in-service assessment, failing trainees often complain that qualities other than academic or professional qualities influence ‘formal formative assessment’ to a considerable extent (Greaves, 2003:35). This complaint is not as vociferous in the case of summative written exams, perhaps because the identities of students/trainees are concealed. To discover the feelings of the SpRs about this issue, a question was asked and the responses are summarised below.

Table 5.1.21

SpRs' perceptions regarding the effect of extraneous qualities on assessment

	To a great extent	To a considerable extent	To some extent	To a negligible extent	No Response
No. of responses against 'the extent to which assessment is affected by qualities other than professional qualities'	4	13	25	2	1
Percentage of total responses	9.1%	29.5%	56.8%	4.6%	

Table 5.1.21 shows that a very small proportion of the SpRs (4.6%) felt that qualities such as ethnicity, gender, dress sense and personal relationship with consultants have a negligible effect on assessment. In other words, 95.4% felt that the effect of these could not be overlooked, while the majority (56.8%) felt that such qualities have some effect on assessment. It is a matter of concern that a considerable proportion of SpRs ($9.1 + 29.5 = 38.6\%$) felt that such qualities have a considerable or great effect on assessment. This is not a desirable state of affairs it has an adverse effect on the validity of assessment and thereby undermines its credibility.

Although this perception on the part of the SpRs may be wrong, it is still not desirable since it may affect the way the SpRs view the feedback provided by the consultants. One possible reason, revealed in Table 5.1.5, is that the majority of the SpRs felt that most of the competencies are under-assessed: it is a widely held view that, to reduce the effect of extraneous factors on formative assessment, it should be carried out more frequently, in detail and by more assessors (Greaves, *ibid.*:35). Another possible reason, shown in Table 5.1.10, may be that 78.6% of the SpRs felt that feedback was general in nature: if feedback is not specific and points out general shortcomings then trainees may believe that

extraneous factors are playing some role (Boud, 1997). An increase in the amount and frequency of formative assessment which is specific in nature may therefore reduce misunderstanding about the influence of extraneous factors on assessment and make it more valid.

Effect of quality of feedback on the relationships between consultants and SpRs (Questions 19 and 20)

Assessment is a double-edged sword, especially when assessing adults: not only does it give an idea of the learners’ capabilities to teachers but it also creates an image of teachers in learners’ minds (Walker and Harris, 1998:29). A question was therefore asked to evaluate the general impact of the quality of feedback and the method of providing it on the SpRs’ images of consultants as trainers. Their responses are presented below.

Table 5.1. 22
Effect of quality of feedback on the images of consultants held by SpRs

	To a great extent	To a considerable extent	To some extent	To a negligible extent	No Response
No. of responses against ‘extent to which images of consultants are affected by the quality of their feedback’	10	21	9	4	1
Percentage of total responses	22.7%	47.7%	20.5%	9.1%	

It is clear that the SpRs took assessment so seriously that, according to the majority (22.7 + 47.7 = 70.4%), the quality of the feedback and the way it was provided affected their images of consultants as trainers either to a considerable extent or to a great extent. It can be inferred that trainees consider being a good assessor an important condition for being a good educator. Sometimes this process of giving and receiving feedback becomes so personal that it may create a conflict between the consultants and the SpRs. A separate

question was asked to determine the frequency of such occurrences. The responses are presented in Table 5.1.23:

Table 5.1.23
Frequency of interpersonal conflict between SpRs and consultants because of feedback

	Always	Often	Some times	Rarely	No Response
No. of responses against ‘How often interpersonal conflict is created with consultants because of process of giving and receiving feedback’	0	1	14	29	1
Percentage of total responses	0 %	2.3%	31.8%	65.9%	

For the majority of the SpRs (65.9%), the process of giving and receiving the feedback rarely caused interpersonal conflict. In the case of only one SpR, this had happened often and the cause of this may be attributed to that particular SpR rather than to the consultants. Yet for a considerable proportion of the SpRs (31.8%), interpersonal conflict was created sometimes. Greaves (2003:35) suggests that if the process of assessment is not sufficiently transparent and participative, then the chances of interpersonal conflict or mistrust arising between assessor and assessed will increase. It is also interesting to note that, according to Table 5.1.20, nearly the same proportion of SpRs (38.6%) felt that qualities other than professional qualities also affect the assessment to a considerable extent. It may be inferred from this discussion that there is a need to make formative assessment more valid, inclusive and transparent.

5.1.4 Part D: SpRs’ Overall Opinions of In-Training Assessment

In this last section of the questionnaire, some general questions were asked about the SpRs’ general opinions of In-Training Assessment (ITA), which is an ongoing process, and the annual formal recording of this assessment known as the RITA (Record of In-Training Assessment). The trainees’ responses are summarised below:

Availability of time to SpRs for reflection on their own performance (Question 21)

An examination of the working conditions of the SpRs indicated that they were kept quite busy. It therefore became necessary to determine whether they were allowed time to reflect on their performance and practice. Their responses are shown below.

Table 5.1. 24
SpRs’ perceptions regarding the availability of time for reflection

	Always	Often	Some times	Rarely	No Response
No. of responses against ‘availability of time for reflection on own performance’	4	17	18	5	1
Percentage of total responses	9.1%	38.6%	40.9%	11.4%	

The above table shows that the trainees’ responses to this question were evenly distributed but slightly skewed towards less time. 52.3% (40.9 + 11.4) felt that they had time for reflection either rarely or sometimes. It can therefore be said that there is a need to treat reflection as part of the curriculum so that time can be earmarked for it. However, this question does not take into account the quality and amount of reflection and so even for those SpRs who responded that they did get sufficient time for reflection, there is a need to explore the quality of this reflection.

Effect of ITA (In-Training Assessment) on motivation for learning (Questions 22 and 23)

Numerous researchers have explored the effect of assessment on motivation to learn (see Boud, 1997; and Ecclestone, 2002). Motivation depends on the ways assessment is conducted and feedback is provided. Two separate questions were asked about the extent to which ITA motivated or demotivated the SpRs. Tables 5.1.25 and 5.1.26 respectively show the responses to these questions.

Table 5.1.25

SpRs’ perceptions regarding the extent to which ITA motivates learning

	To a great extent	To a considerable extent	To some extent	To a negligible extent	No Response
No. of responses against ‘the extent to which ITA increases interest in learning experiences’	0	13	18	12	2
Percentage of total responses	0%	30.2%	41.9%	27.9%	

It is clear that ITA did not generate interest in learning to a great extent. However, it did generate interest to a considerable extent in the case of 30.2% of the SpRs, while 41.9% saw it as successful only to some extent. Yet a considerable proportion of the SpRs (27.9%) felt that it generated interest to a negligible extent. This shows that ITA was only moderately successful in this regard. As suggested earlier, a more inclusive and transparent assessment system may provide a more motivating experience.

Table 5.1. 26

SpRs’ perceptions regarding the extent to which ITA demotivates learning

	To a great extent	To a considerable extent	To some extent	To a negligible extent	No Response
No. of responses against ‘the extent to which ITA decreases interest in learning experiences’	1	2	12	28	2
Percentage of total responses	2.3%	4.7%	27.9%	65.1%	

It is clear from Table 5.1.26 that the majority of SpRs (65.1%) felt that their experiences of assessment had not decreased their interest in learning. However, ITA did decreased their interest to a considerable extent in the case of 7% (2.3%+ 4.7%) and to some extent for 27.9%.

The trainees’ responses in Tables 5.1.10, 11, 12, 17, 18, 19, 20 and 21, reveal that a considerable number of the trainees thought that: feedback was not accurate, too general in nature and not provided in time; the opinion of the SpRs was not valued; consultants provided feedback without enough exposure to the trainees’ performance; consultants were not sufficiently competent in clinical knowledge and assessment techniques; assessment was also affected by qualities other than professional. These problems suggest why a considerable number of SpRs felt that assessment demotivated them instead of motivating them for more and better learning.

SpRs’ overall perceptions of In-Training Assessment (ITA) (Question 24)

After asking 23 questions about the various factors affecting formative assessment, it was pertinent to ask the SpRs about their overall perceptions of the formative assessment system at the QSA, known as In-Training Assessment.

Table 5.1. 27
SpRs’ overall perceptions of In-Training Assessment (ITA)

	It is very good	It is satisfactory	It needs some changes	It needs radical changes	No Response
No. of responses against ‘How do you perceive the present form of ITA?’	1	11	24	8	1
Percentage of total responses	2.3%	25%	54.5%	18.2%	

below. This finding is therefore important for this study since it indicates that trainees were only moderately satisfied with the existing formative assessment system and wished for improvement. In this context, it might be assumed that they would have a positive attitude towards PBA and some good expectations from it.

SpRs’ overall perceptions of the Record of In-Training Assessment (RITA) (Question 25)

The RITA is a summative type of assessment used for making decisions about promoting trainees to the next year of training. These decisions are based on the collection of all

records pertaining to ITA for that year, which mainly comprise consultants’ reports, the college tutors’ reports and trainees’ logbooks. Although an in-depth study of summative assessment is not the focus of this research, a question was asked about the SpRs’ overall perception of RITA since it is closely linked to ITA. Moreover, since the RITA feeds into planning of the next year’s training, it can be said that it also constitutes part of a formative assessment process.

Table 5.1. 28
SpRs’ overall perceptions of (RITA)

	It is very good	It is satisfactory	It needs some changes	It needs radical changes	No Response
No. of responses against ‘How do you perceive the present form of RITA?’	3	14	18	7	3
Percentage of total responses	7.1%	33.3%	42.9%	16.7%	

The above table shows that the majority of trainees wanted changes made to the existing RITA (42.9+16.7 = 59.6%). This confirmed that, similarly to ITA, the RITA is only moderately accepted and there is a desire to improve it. The focus of this study is on the improvement of self-assessment and not on the formal formative or summative assessment process. However, since self-assessment, formal formative assessment and summative assessment are co-related, it is necessary to understand the effects of all three in order to make overall improvement.

5.1.5 Summary of SpRs’ Perceptions of the Existing Assessment System

It was important to understand the SpRs’ perceptions about the present assessment system since such an understanding helped in devising the interview questions. A better understanding of the SpRs’ perceptions of the existing assessment system emerged after cross-referencing the above analysis with an analysis of their responses in the interviews; this understanding is discussed in Chapter 6.

Extent of assessment

In general, the SpRs believed that they were under-assessed. This indicated a need for more formative assessment, especially for non-clinical and personality-related competencies, while “learning to learn” also required special attention as it was given very low priority.

Methods and assessment criteria

Consultants were considered the most suitable group to assess SpRs formatively, followed by the SpRs themselves, making it likely that methods such as portfolio-based self-assessment would be received positively. Peers were considered the least suitable, while patients and paramedical staff members were considered better than peers were. Consultants’ opinions were considered the most useful for formative assessment, followed by the Objective Structured Clinical Examination (OSCE). Methods of assessing theoretical knowledge were not considered suitable. The logbook was considered the least suitable. Most trainees said they did not know the assessment criteria, or the relative importance of each criterion, or the standards of performance expected against those criteria. The SpRs wanted to improve present methods and to have a better understanding of criteria and standards. In her study of how module teams establish, share and apply assessment standards in a business school, Price (2005) also found that the simple presence of a community of practice is not enough and there is a need to develop a ‘scholarship of assessment’ which in turn would foster the assessment standards discourse within the communities leading to sharing of the assessment standards.

Quality of feedback

The quality of feedback at the QSA cannot be deemed satisfactory since it was usually general in nature and only sometimes accurate or provided within a reasonable time period. In most cases, feedback did not indicate the possible causes of poor performances and in most aspects of training, its effect on trainees’ learning was not significant. 38.6% of SpRs

felt that qualities other than professional ones had a considerable effect on their grades and feedback. 86.3% of SpRs felt that consultants provided formal feedback reports without having adequate exposure to their performance. This indicates the need for providing timely and specific feedback more often, and following it up with some form of interaction between SpRs and consultants to avoid misunderstandings.

Importance of self-directed learning

According to the SpRs consultants valued self-directed learning in them highly as far as their overall progress was concerned but consultants did not encourage reflection on isolated performances. 97.6% of the SpRs felt that their views on self-performance were not solicited. 52.3% felt that they did not have enough time for reflection on their performances. This indicates a need for some mechanism in the present assessment system to encourage reflection and self-directed learning.

Consultants' competence to assess SpRs

Around one third of the SpRs felt that most consultants were not clinically competent and 83.7% of SpRs felt that most consultants were not sufficiently competent in assessment techniques. 70.4% felt that the way a consultant carried out assessment affected his/her image as a good trainer. 31.8% suggested that interpersonal conflict was sometimes created between them and consultants as a result of assessment. These findings are a matter of concern but it would not be valid to accept that consultants were incompetent on the basis of the SpRs' views, and separate research is needed to explore the reasons for this situation. Perhaps more inclusive assessment might reduce the extent of misunderstandings between consultants and SpRs, if there are any.

Overall effect of existing assessment system

The existing formative assessment system (ITA) was able to motivate the majority of the SpRs only to some extent, while 27.9% felt that its effect on motivation was negligible. Formative assessment also resulted in decreased interest in learning to a considerable extent in the case of 4.7% of the SpRs and to some extent in the case of 27.9%. It is a

matter of concern that formative assessment also had negative consequences in a considerable number of cases. 54.5% of SpRs felt the need for some changes to ITA, with 18.2% believing that radical changes were required. Similar views were expressed about the annual summative assessment namely, RITA (Record of In-Training Assessment) which is the culmination of ITA.

5.2. Attitudes of Trainees towards Different components of Training

As SpRs progress from being novices to being experts, multiple aspects of the profession are sequentially introduced into their training in addition to clinical knowledge and skills. These aspects include ‘teamwork’, ‘personnel communication’, ‘time management’, ‘organisational skills’ and ‘decision making capabilities’ which contribute to the increased complexity of their performance (Friedman Ben David, 2000). Hammer *et al.* (1997) highlight the importance of training in communication and leadership skills for personal and professional development. Fleture and Glavin (2003) argue that anaesthetists should be trained in non-technical skills in order to improve their performance. Yet different reports indicate that SpRs in the UK generally did not accord due importance to the non-clinical components of training (BMA, 1995; GMC, 1993 and GMC, 1997). One of the main reasons for introducing portfolio-based assessment at the QSA was the hope that it might highlight these areas of training, resulting in a widening of the curriculum. Friedman Ben David (2001:538) argues that:

“The new methods of assessment to expand professional horizons....present the profession with the opportunity to realign curricula to incorporate the development of professionalism as a central outcome and find ways to assess professionalism and professional growth.”

The portfolio format was therefore designed so that a major part dealt with non-clinical components and objectives related to behavioural development. However, the way in which and the extent to which the portfolio was used might have depended to a large extent on the attitudes of the trainees towards these components and objectives of the training (Khattri, 1995). Smith and Tillema (1998:204) also found in their study:

“...that the attitude or orientation towards learning and development greatly influences one’s view about assessment and taking control over one’s learning.”

These views indicate that there is a two-way relationship between perception of assessment and perception of learning. In the context of this study it was therefore important to understand this two-way relationship: the effect of portfolio use on attitudes towards learning and, conversely, the effect of attitudes towards learning on the use of portfolio. Kolb (1984) also argued that learning does not occur merely by doing an activity, but actually occurs when the learner reflects on the experience; for this to happen, it is necessary that she or he owns the activity and performs it with full interest. Therefore, in order to determine the extent to which trainees felt a need for improvement in different skills and believed in the potential of non-clinical activities to develop those skills, a questionnaire in the form of a Likert scale was designed (see Appendix no. viii). This Likert scale included 32 statements about various non-clinical components of the training such as research, teaching juniors and medical audit, as well as statements about the main objectives of the training, such as development of communication skills, teamwork and leadership qualities. Out of these 32 statements, 16 were made intentionally negative about these components of training, with the idea that a combination of positive and negative statements would oblige trainees to think before responding, thereby avoiding possible conformity with the statements (Anderson, 1981). There were two to four statements about each component or objective of training but these statements were intermingled with statements relating to other components of training. This was aimed to disturb, at least to some extent, the subconscious attempt of trainees to give socially acceptable responses or responses based on their espoused theories, and would oblige them to reveal at least some of their true attitudes (Best and Kahan, 1989).

This questionnaire was sent by post to all ninety SpRs undergoing training at the time of this study. 25 SpRs replied initially, and a reminder produced 22 more replies, making a total of 47

out of 90. Thus, 52% of the population responded. Analyses of the responses developed an understanding of the attitudes of the trainees towards non-clinical activities and objectives of the training. This understanding, regarding major non-clinical activities is described below:

5.2.1 Teaching juniors

Teaching juniors is a major non-clinical activity for trainees. The following statements explored this activity:

Statement no. 1: *“As a trainee I find that giving lectures & tutorials to my junior trainees enhances my own understanding of the subject material I have taught.”*

Statement no. 3: *“Giving lectures and tutorials helps me to develop communication skills. ”*

Statement no. 32: *“I learn more from working in clinics and operating theatres than from teaching and training juniors.”*

The responses of the trainees are summarised in the following table:

Table No. 5.2.1						
Learning from teaching juniors						
Serial no. of the statement	Nature of the statement with respect to training	No. of responses against following points				
		Strongly agree	Agree	Disagree	Strongly disagree	No Response
01	Positive	37 (78.7%)	09 (19.1 %)	01 (2.2%)	00 (0.0%)	00
03	Positive	27 (58.4%)	19 (40.4%)	01 (2.2%)	00 (0.0%)	00
32	Negative	01 (2.3%)	13 (29.5%)	29 (65.9%)	01 (2.3%)	03

Nearly all the trainees (97.8%, of which 78.7% strongly) expressed their firm belief that giving lectures and tutorials to junior trainees or undergraduate students enhanced their own understanding of the subject content. Similarly, responses to statement no.3 indicated that nearly the same majority (97.8%, of which 58.4% strongly) felt that the experience of teaching

also developed their communication skills. Only one SpR disagreed with statements 1 and 3. However, the trainees had divided opinions about statement no. 32. One trainee (out of 44 who responded) strongly agreed, while 13 (29.5%) agreed. The surprise response came from 29 trainees (65.9%) who disagreed. This distribution shows that the trainees had different opinions about whether they should pursue teaching activities at the expense of clinical activities. However, it may be inferred that the trainees were generally in favour of teaching.

5.2.2 Attending Seminars Given by Seniors

Senior consultants give seminars to SpRs for teaching purposes as well as to share experiences. However, this requires that consultants and SpRs both take time out from their clinical activities. After becoming consultants, SpRs will also be required to follow the same practice. The following statements explored the SpRs’ views in this regard.

Statement no. 14: *“Practising consultants should not teach trainees because it interferes with their principal responsibility of treating patients.”*

Statement no. 21: *“Training/Education should be the job of practising consultants, because they have real experience.”*

The SpRs’ responses to these statements are shown in the table below:

Table 5.2.2

Attending seminars given by seniors

Serial no. of the statement	Nature of the statement with respect to training	No. of responses against following points				
		Strongly agree	Agree	Disagree	Strongly disagree	No Response
14	Negative	00 (0.0%)	01 (2.2%)	17 (37%)	28 (60.8%)	01
21	Positive	05 (11.1%)	22 (48.9 %)	15 (33.3%)	03 (6.7%)	02

Nearly all trainees (97.8%) disagreed (of which 60.8% strongly) with statement 14, indicating that they need to be taught by consultants even if it interferes with the consultants' principal duty of treating patients. This indicates that the trainees considered it important to learn by attending classes/seminars taken by consultants.

However, in response to statement 21, only 5 out of 45 (11.1%) SpRs strongly agreed, while 22 (48.9%) merely agreed with it. The most thought-provoking response was from 18 trainees (40%) among whom 3 strongly disagreed and 15 simply disagreed with this statement. The reason for this kind of response from these trainees may found in one or more of the following beliefs:

- (i) The main role of teachers is only to pass on general academic information based on well-proven research and not to share their experiences.
- (ii) Experience gained by consultants does not help in developing their (consultants') knowledge base.
- (iii) It is difficult to learn from the experience of others (consultants), and they (trainees) can learn only from their own experience.

If the trainees held any of the above beliefs, it would be difficult for them to take full advantage of PBA, since the concept of learning from one’s own experiences and from others' is the corner-stone of the philosophy that underpins PBA (Challis, 1999). So during interviews I explored the extent to which the trainees held these beliefs.

5.2.3 Medical Audit

Apart from teaching, medical audit is the second most important non-clinical activity in which trainees invest a large amount of time, and a considerable portion of the portfolio is devoted to it. The following statements were used to explore the perceived effectiveness of this activity.

Statement no. 2: *“Doing medical audit does not result in any improvement of medical practice.”*
Statement no. 13: *“The process of medical audit motivates concerned people to achieve required standards.”*

Table 5.2.3
Importance of medical audit

Serial no. of the statement	Nature of the statement with respect to training	No. of responses against following points				
		Strongly agree	Agree	Disagree	Strongly disagree	No Response
02	Negative	03 (6.4%)	15 (31.9%)	24 (50.1%)	05 (10.6%)	00
13	Positive	00 (0.0%)	35 (76.1%)	10 (21.7%)	01 (2.2%)	01

The trainees had diverse opinions about the utility of audit in improving medical practice. In response to statement 2, 38.3% (6.4% strongly) felt that it did not improve medical practice. However, there were slightly more trainees in favour of audit than were against it. Only 10.6% were sure that it resulted in improvement, while 51.1% believed that it might result in improvement.

Although there were widely differing opinions about audit, the difference narrowed in favour of audit for maintaining medical standards. However, it can be seen from the responses to statement 13 that a considerable proportion of the trainees (23.9%) were sceptical about the utility of audit even for motivating people to maintain standards.

As far as the role of the SpRs in conducting audit and the learning arising from this activity are concerned, the following statements were used:

Statement no. 8: *“SpRs should not be involved in medical audit and it is better if consultants perform this job.”*

Statement no. 27: *"The process of performing medical audit helps SpRs to understand better the accepted standards of medical practice and the practical problems involved in achieving them.*

Table 5.2.4
Learning from medical audit

Serial no. of the statement	Nature of the statement with respect to training	No of responses against following points				
		Strongly agree	Agree	Disagree	Strongly disagree	No Response
08	Negative	00 (0.0%)	03 (6.4%)	33 (70.2%)	11 (23.4%)	00
27	Positive	02 (4.4%)	35 (77.8%)	08 (17.8%)	00 (0.0%)	02

In response to statement 8 about the need for their involvement in the audit process, most felt (23.4% strongly and 70.2% normally) that they should be involved and that audit should not be left only to consultants. It is interesting to note that, despite a lack of faith in its utility, the SpRs still wanted to do it! This needed further exploration during the interviews. This issue was complicated by the fact that, in response to statement no. 27, eight trainees disagreed; in

other words, they did not agree that conducting audits helped them to understand the standards and the practical barriers to achieving them. Yet, of these 8, 7 expressed their desire to conduct medical audit. A desire to do medical audit indicates that there were factors other than ‘educational value’ in doing it which also influenced the trainees’ attitudes towards it. One factor may be the appreciation that medical audits are the basis for the self-regulation of practice and the maintenance of standards, so that they should be conducted, even if they do not have any educational value.

5.2.4 Conducting Research and Presenting it at Seminars/Conferences

Conducting research and presenting it at seminars and conferences is considered a crucial professional duty in the medical profession (Sox, 2002). However, not everyone can contribute to it for reasons such as shortage of time, lack of interest, unawareness about research methods and an inability to write academically. However, SpRs are supposed to contribute to these activities before they come out of school as consultants (Calman, 2000). Sections related to these activities are therefore covered in the portfolio format. The following statements were used to explore the disposition of the SpRs towards these activities.

Statement no. 6: *“Practising consultants should not do research and should leave it to the academics”*

Statement no. 10: *“There is no point in medical professionals learning statistics.”*

Statement no. 11: *“Presenting research or work-related experiences in seminar-type situations promotes better understanding of the issues.”*

Statement no. 18: *“Presenting research work or work-related experience is merely a publicity exercise.”*

Statement no. 19: *“Doing research inculcates a habit of scientific enquiry in consultants which helps them learn from the experience of routine practice.”*

The SpRs’ responses to the above statements are shown in the table below:

Table 5.2.5
Conducting research and presenting it at seminars/conferences

Serial no. of the statement	Nature of the statement with respect to training	No. of responses against following points				
		Strongly agree	Agree	Disagree	Strongly disagree	No Response
06	Negative	00 (0.0%)	05 (11.1%)	30 (66.7%)	10 (22.2%)	02
10	Negative	00 (0.0%)	06 (13.3%)	33 (73.4%)	06 (13.3%)	02
11	Positive	05 (10.6%)	41 (87.3 %)	01 (2.1%)	00 (0.0%)	00
18	Negative	00 (0.0 %)	03 (6.7%)	37 (82.2%)	05 (11.1%)	02
19	Positive	02 (4.5%)	24 (54.6%)	16 (36.4%)	02 (4.5%)	03

The importance of research was accepted in general by the SpRs, as is evident from their responses to statement 11, nearly all the trainees (97.9%, of which 10.6% strongly) agreeing that presenting findings of research and work-related experiences promoted better understanding among a community of practitioners. Nearly the same proportion accepted the sincerity of the purpose in presenting research and work-related experiences, as is clear from their disagreement with statement 18. This means that publication or presentation was not seen merely as a publicity exercise. Similarly, the majority of trainees, apart from 11.1%, disagreed with statement no. 6 and thus expressed their belief that practising consultants should also conduct medical research. In a similar vein, the majority (86.7%, out of which 13.3% strongly) disagreed with statement no. 10, meaning that SpRs should learn statistics so that they could use it for conducting research in the future. Thus it can be inferred from the responses to these

four statements that the SpRs generally believed that they and practising consultants should be involved in research since it is beneficial to the profession.

An attitude of scientific enquiry is considered useful for learning from day-to-day experiences (Brookfield, 2000), while systematic research teaches the methods of scientific enquiry. However, only 59.1% of trainees agreed (4.5% strongly) with statement no.19 which shows the relationship between learning from routine practice and the experience of systematic research, while a considerable proportion (namely 40.9% of the trainees, of which 4.5% strongly) disagreed with this statement. This shows that, although the trainees almost unanimously accepted the need for consultants to conduct research in a formal way, most of them did not believe that conducting research inculcates a habit of scientific enquiry which would help them to learn from the experience of routine practice. It may be inferred from this that some trainees either believed that formal research is not able to develop an attitude of scientific enquiry, or that this attitude is not very useful for learning from experiences gained during routine practice.

The perceived belief may be that consultants cannot generate knowledge from the experiences in as effective a way as academics can generate it from the formal research. If such beliefs exist, they can undermine learning from experience and the process of developing a portfolio. The possible existence of such beliefs therefore needed to be explored further during the interviews with the SpRs.

5.2.5 Reading Medical Journals and Publishing in Them

Reading medical journals and publishing in them were also considered important non-clinical activities at the QSA, covered in a separate section in the portfolio. The Director of School argued that trainees did not read medical journals to the desired extent and that the publishing

of letters and papers was negligible. In order to examine the attitudes of the trainees towards this activity, they were presented with the following statements:

Statement no. 15: *“Reading medical journals is an effective way to learn from the experiences of others.”*

Statement no. 23: *"Reading medical journals is an effective way of getting information regarding the developments taking place in an area of interest."*

Statement no. 30: *"Reading medical journals is of little use for practising doctors since most of the papers published are theoretical and academic in nature."*

Table 5.2.6
Reading medical journals

Serial no. of the statement	Nature of the statement with respect to training	No. of responses against following points				
		Strongly agree	Agree	Disagree	Strongly disagree	No Response
15	Positive	02 (4.4 %)	29 (63.0%)	14 (30.4%)	01 (2.2%)	01
23	Positive	05 (10.6%)	40 (85.0%)	01 (2.2%)	01 (2.2 %)	00
30	Negative	00 (0 %)	00 (0 %)	42 (93.3%)	03 (6.7%)	02

In response to statement 23 nearly all the trainees (95.6%, of which 10.6% strongly) agreed that reading medical journals is an effective way of getting information about developments in an area of interest. However, the commonly cited reason for the fact that professionals do not normally read journals is that they find it less useful for their routine practice. However, all the SpRs disagreed with statement 30, meaning that a considerable proportion of published papers have practical relevance and are not purely theoretical. From the responses to statements 23 and 30 it may be inferred that trainees had a good attitude towards reading journals. However,

it needs to be ascertained to what extent this attitude was converted into real action, for example by a study of the library habits of trainees or by assessing their awareness of what is published in journals; however, this issue was not within the scope of this study.

32.6% disagreed with statement 15. This belief (if based on their study of journals rather than on their preconceived ideas) perhaps indicates a scarcity of papers based on real-life experiences. This might highlight the need to develop a habit of writing papers based on experiences of day-to-day work practice. Properly developed portfolios might be a storehouse of such experiences and it would thus be possible to generate papers based on learning from experiences (Gupta *et al.*, 2001). The following statements were related to the writing and publication of letters and papers.

Statement no. 4: *“Publication of research work/case reviews/letters depends more on writing skills and less on the quality of the work discussed in the article.”*

Statement no. 25: *“The process of writing a paper/case review/letter on an issue helps to clarify one’s views about that issue.”* The responses of the trainees on this issue were as below:

Table 5.2.7
Publishing in medical journals

Serial no. of the statement	Nature of the statement with respect to training	No. of responses against following points				
		Strongly agree	Agree	Disagree	Strongly disagree	No Response
04	Negative	03 (6.5%)	14 (30.5%)	26 (56.5%)	03 (6.5%)	01
25	Positive	03 (6.7%)	38 (84.4%)	04 (8.9%)	00 (0.0%)	02

Nearly all the trainees agreed (91.1%, of which 6.7% strongly) with statement 25, indicating that the process of writing a paper/case review/letter on an issue helped them to understand

that issue better. However, for statement 4, there were wide differences of opinion, with 37% of trainees agreeing with the statement (6.5% strongly), and 63% disagreeing (6.5% strongly). This shows that a considerable proportion of trainees felt that writing skills are more important than the content of articles; this belief might act as a barrier to writing papers for journals based on either research or work-related experiences and might make them passive regarding writing papers. Although lack of writing skills should not become an obstacle to writing papers, at the same time, Biggs (1999:173) argues that efforts should be made to acquire writing skills, and a habit of writing should be developed since writing has its own virtues. Edwards *et al.* (2001) report that the trainees developed writing skills after becoming members of a journal and letter writing club; if the relationship between writing skills and publishing is symbiotic, the habit of maintaining a portfolio may also help develop such skills.

5.2.6 Time Management

According to the Director of the QSA, SpRs complain of a lack of time for non-clinical activities. However, he believed that poor time management, rather than non-availability of time, might be the reason in most cases. Provision was made in the portfolio for describing their experiences of managing time so that they could reflect on their time management skills. To explore their perception of this issue, they were asked to comment on the following statements:

Statement no. 9: *“With conscious efforts, time can be managed so that we can find time for non-routine activities.”*

Statement no. 26: *“A SpR’s working day is so chaotic that there is a little scope for using time management techniques.”*

Table No. 5.2.8
Time Management

Serial no. of the statement	Nature of the statement with respect to training	No of responses against following points				
		Strongly agree	Agree	Disagree	Strongly disagree	No Response
09	Positive	01 (2.1%)	35 (74.5%)	08 (17%)	03 (6.4%)	00
26	Negative	00 (0.0%)	09 (19.6%)	33 (71.9 %)	04 (8.5%)	01

From the responses to statement 26, it is clear that a large majority of the trainees (80.4%, of which 8.5% strongly) felt that the SpRs' working day was not too chaotic and that there was scope for time management. This finding is further supported by the agreement of nearly the same proportion of trainees to statement 9. However, this finding contradicted the generally-perceived notion at the QSA that the main obstacle to pursuing non-clinical activity was lack of time. It is also a positive indicator for PBA that most SpRs felt they could spare time for non-clinical activities by consciously managing time, this belief may make it easy to implement the curriculum in non-clinical areas.

Yet, this finding is not applicable to a considerable proportion (19.6 %) whose opinion indicates that, for them, the problem of lack of time was not the result of poor time management but of the workload and the nature of the work. This raises the question of whether the nature of work was so chaotic that it was really impossible to manage the time, or that problems in time management made trainees think that working was chaotic. Time management is therefore an issue influenced by work-culture as well as by professional attitudes. In any case, for the successful implementation of portfolio-supported learning, such

problems may be analysed so that trainees can be supported, either through time management or by reducing their routine workload according to the needs of the situation.

5.2.7 Hospital Administration and Management Tasks

Hospital administration and management is another important area in which consultants were supposed to contribute and so the curriculum had provision for training and work experience in this area. These statements were used in this regard:

Statement no. 7: *“Proper management of hospitals is possible only when consultants are engaged in it because non-medical administrators can't appreciate the issues involved.”*

Statement no. 22: *“Consultants should not be given management jobs like preparing rotas, timetables, etc, since administrative staff can perform these jobs.”*

Table 5.2.9
Hospital Administration and Management Jobs

Serial no. of the statement	Nature of the statement with respect to training	No. of responses against following points				
		Strongly agree	Agree	Disagree	Strongly disagree	No Response
07	Positive	12 (26.7%)	22 (48.9%)	11 (24.4%)	00 (0.0%)	02
22	Negative	00 (0.0%)	13 (27.7%)	30 (63.8%)	04 (8.5%)	00

The majority of trainees were in favour of the involvement of medical professionals in hospital administration and management, but a large minority were against it. In response to statement 7, a majority (75.6%, of which 26.7% strongly) felt that proper management of hospitals is possible only when consultants are involved in it. Similarly, in response to statement 22, nearly the same proportion of trainees (72.3%, of which 8.5% strongly) wanted consultants to be given jobs like preparing rotas, timetables, etc. However, a large minority of 13 out of 47

(27.7%) thought the opposite. It is interesting to note that of these 13 trainees, 11 were the same ones who, in response to statement 7, indicated that hospitals can be managed by non-medical administrators even though they are not aware of the issues involved. Such beliefs may work as a barrier to associating themselves effectively with components of training related to management and administration. An analysis of the portfolios of the trainees may shed more light on this issue.

5.2.8 Communication skills

The BMA (1998) highlights special efforts for improving the communication skills of doctors as part of their professional development. But to convince someone that he/she needs to improve in his/her communication skills is a very difficult task. The basic problem lies in the attitudes of people who think that they communicate well but do not (Haney, 1992). If we want to explore the beliefs of trainees about their own communication abilities, we might obtain socially acceptable answers or answers based on their espoused theories (Anderson, 1981). Therefore, instead of asking direct questions about communication, the trainees were asked about perceived reasons for ineffective working in situations where communication is important. Three work situations were identified: first, where they have to work as a team leader, second, when they have to take joint decisions after deliberations with their colleagues and third, communicating with difficult patients.

(a) Getting co-operation from other members while working as a team leader

In response to question no. 33, a considerable majority (28, out of 47) felt that when they worked as team leader, they encountered problems in getting co-operation from other team members. These trainees were asked to rate the various possible reasons for this on a rating

scale (where 5 = most important factor and 1= least important factor). The average ratings given by these 28 trainees are as shown below.

Table 5.2.10

Relative ranking of the factors responsible for lack of co-operation

	Factors responsible for lack of co-operation in order of ranking received	average rating
(i)	Lack of proper communication amongst team members	3.25
(ii)	Lack of proper attitudes in team members	3.16
(iii)	Lack of delegation of power to leader for dealing with the team members	3.15
(iv)	Lack of proper communication between leader of team and other members	2.46
(v)	Lack of leadership qualities	2.25

However, the issue of appreciating problems in communication is not that simple. An analysis of the above information indicates the following facts:

The two most important reasons for poor co-operation were identified as “Lack of proper communication amongst team members” and “Lack of proper attitudes in team members”. These two factors indicate problems in others and the third factor indicates that they wanted more power to deal with their colleagues.

In contrast, factors related to shortcomings in themselves (when they were working as leader of the team), namely “Lack of proper communication between leader of team and other members” and “Lack of leadership qualities” were identified as being the least responsible for poor teamwork and these factors received comparatively low average ratings of 2.25 and 2.46 respectively.

(B) Factors responsible for poor joint decisions

Hirokawa and Poole (1996) and Harper and Askling (1980) found that groups making high quality decisions displayed higher quality leadership, more open communication, and a higher proportion of active participants than did groups whose decisions were judged to be of poor quality. On the basis of these findings, trainees were asked to rate the factors responsible for poor joint decisions (question no. 34) on a five-point scale, where 5 = most important and 1 = least important.

Table 5.2.11
Relative ranking of the factors responsible for poor joint decisions

	Factors responsible for poor joint decisions	Average rating
(i)	Some people become too adamant about their views	3.51
(ii)	People concerned can't communicate properly with each other	3.44
(iii)	We don't gather enough information before taking decisions	3.07
(iv)	People concerned do not have enough clinical knowledge	2.44
(v)	Some people don't want to involve themselves in joint decisions	2.21

The two most important factors identified by trainees as being responsible for poor joint decisions were related to communication, namely " Some people became too adamant about their views." and "inability of concerned persons to communicate properly", while those factors related to clinical knowledge and the involvement of trainees in decision-making were considered the least responsible. Thus it can be inferred that factors related to communication skills were mainly responsible for poor joint decisions and that there is thus a need to improve these skills.

(c) Factors responsible for poor communication between them and patients

Trainees were asked (question no. 35) to rate the factors responsible for poor communication between them and patients on a five-point rating scale, where 5 = most important and 1 = least

important. These factors are arranged in Table 5.2.12 in the order of the average ratings given by the trainees.

Table 5.2.12

Relative ranking of the factors responsible for poor communication between SpRs and patients

	Factors responsible for poor communication between SpRs and patients	average rating
(i)	Patients have their own views about their disease and its treatment.	3.67
(ii)	SpRs don't have enough time for talking with patients.	3.62
(iii)	Patients lack communication skills.	2.51
(iv)	Patients ask for irrelevant information (i.e., information which is not important for them from a clinical point of view).	2.38
(v)	I lack communication skills required to deal with difficult patients.	2.18

It is interesting to note that the main factor responsible for poor communication with patients was "Patients have their own views about their disease and its treatment". This may be a genuine problem in the case of a considerable number of patients and especially so in the case of difficult patients. The second most important factor was "SpRs do not have enough time". This is an issue related to workload and working conditions in hospitals and hence it is beyond the scope of this study. The third and fourth factors in the ranking also indicate that the fault lies with the patients, as these factors were, respectively: "Patients lack communication skills" and "Patients ask for irrelevant information". However, a factor indicating shortcomings in the SpRs namely "I lack communication skills required to deal with difficult patients" was identified as the least responsible.

Thus the analyses of the data shown in Tables 5.10 and 5.11 indicate that most trainees appreciated the importance of communication skills in teamwork and making decisions but felt that any problems in communication was not their fault, but the fault of either colleagues or

patients. This belief might itself have caused poor communication. Moreover, the trainees' beliefs that they had little need either for self-assessment or for improvement in communication skills might have worked as a barrier to improve these skills. It is necessary for SpRs to improve their communication skills because they can help make communication successful, even if the other supporting staff and patients lack communication skills. Haney (1992) argues that professionals' positions of power and better abilities make them more responsible for making communication successful compared to their subordinates or clients, and they can succeed if they make conscious efforts.

The above analysis indicates a need for training in the following areas:

- (i) Self-analysis
- (ii) Leadership skills
- (iii) Communication Skills
- (iv) Management Theories.

One aim of PBA is reflection on self-performance in order to improve self-analysis, leadership skills and communication skills.

5.2.9 Belief in Potential of Training Programmes to Improve Managerial and Generic Skills

The SpRs' training curriculum includes many short-term programmes designed to develop general abilities such as communication skills, leadership qualities, behaviour as a member of a team, etc. But the effectiveness of such training programmes has been a point of debate (Davis, 1998; Davis *et al.*, 1995 and Richards, 1998) and so some trainees might not be committed to taking part in such training. The trainees were therefore asked to comment on statements related to programmes designed to develop different abilities:

(a) Training programmes in management methods/skills

Statement no. 17: “*management training improves their ability to manage.*”

Statement no. 24: “*Management is an art born of common sense and hence there is no need for SpRs to undergo training in management techniques.*”

Table 5.2.13
Training programmes in management methods/skills

Serial no. of the statement	Nature of the statement with respect to training	No. of responses against following points				
		Strongly agree	Agree	Disagree	Strongly disagree	No Response
17	Positive	02 (4.5 %)	38 (86.4 %)	04 (9.1%)	00 (0.0%)	03
24	Negative	00 (0.0%)	00 (0.0%)	28 (60.9%)	18 (39.1%)	01

The responses to statement 17 indicate that the trainees in general saw the potential of training to improve their management capabilities. However, a small minority (9.1%) disagreed. Similarly, all but one disagreed (of which 39.1% strongly) with statement 24. In other words, all trainees appreciated the potential of training to improve their ability to manage. It is intriguing then, why some trainees did not agree with the statement that: "management training improves our ability to manage". There may be two reasons:

- (i) These trainees might have misunderstood the statement as meaning "only" management training can improve the ability to manage. Of course, in addition to training, the opportunity to manage certain activities in the hospital is necessary to develop the ability to manage.
- (ii) Some trainees might have experienced training that was not designed or conducted well. If this was the problem, then a portfolio could help since it has columns in which

to comment on the quality of different types of training. By sharing portfolios the SpRs could develop a common understanding about improvements needed in training and might then be able to approach the appropriate authorities regarding the desired changes.

(b) Training programmes on leadership

Leadership is a personal quality that is considered very difficult to inculcate and there is a difference of opinion about the potential of training to develop leadership skills (Ferris, 1991). Nonetheless, the QSA provided training in this area and trainees were asked to comment on the following statements:

Statement no. 12: *“Leadership is an intrinsic personal quality and hence training cannot develop it.”*

Table 5.2.14
Training programmes on leadership

Serial no. of the statement	Nature of the statement with respect to training	No. of responses against following points				
		Strongly agree	Agree	Disagree	Strongly disagree	No Response
12	Negative	01 (2.2%)	06 (12.7%)	37 (78.7%)	03 (6.4%)	00

The trainees’ responses exhibit a belief in the potential of training to develop their leadership qualities. However, a minority of trainees (7 out of 47 or 14.9%, of which one strongly) felt that leadership qualities are intrinsic personal qualities and could not be developed by training.

Behavioural Training

Apart from leading a team, behaving as a member of a team is also a major aspect of teamwork, and proper behaviour in a team depends more on attitude than on knowledge and

skills (Guzzo and Dickson, 1996.) The following statements were used to explore the trainees’ opinions about improving their behaviour.

Statement no. 16: *“It is not possible to change the way people behave as members of a team after they are 25 years of age.”*

Statement no. 31: *“Behavioural Training can change the pattern of behaviour of the SpRs who do not behave well as members of a team.”*

Table 5.2.15
Behavioural Training

Serial no. of the statement	Nature of the statement with respect to training	No. of responses against following points				
		Strongly agree	Agree	Disagree	Strongly disagree	No Response
16	Negative	00 (0.0 %)	06 (13%)	27 (58.7%)	13 (28.3%)	01
31	Positive	02 (5.3%)	29 (76.3%)	06 (15.8%)	01 (2.6 %)	09

The trainees had varied opinions about the potential of training to improve their behaviour as members of a team. Most trainees agreed with statement 13 (81.6%, of which 5.3% strongly), but a large minority disagreed (18.4%), and 9 out of 47 (19.1%) were undecided. This shows that belief in the potential of training was not widespread, and a large minority had doubts about its potential.

Responses to statement 16 were more convergent with the majority of the trainees disagreeing with this statement (87%, out of which 28.3% strongly), seeming to believe that it is possible to change the way people behave. Yet a considerable minority (13%) thought the opposite.

The responses of the trainees to these two statements seems confusing at first, but some analysis suggests that most trainees saw the possibility of improving the behaviour of SpRs as

a members of a team. However, some may also have thought that training was neither sufficient nor a proper method for this purpose and that other methods might also be required. It remains to be seen whether the habit of self-reflection could bring about this improvement. It is not out of place here to refer to religious scriptures (this is true for all religions), which suggest that change in behaviour is possible only by self-reflection. However, this prophecy has yet to be tested in the realms of education with the help of a portfolio.

Communication skills

Two statements were used to explore the SpRs’ views about the potential of training to improve their communication skills:

Statement no. 5: *"Communication skills can be improved by training."* and
Statement no. 28: *"Communication skills are an intrinsic quality of the individual and hence training can't develop them."*

Table 5.2.16
Training in communication skills

Serial no. of the statement	Nature of the statement with respect to training	No. of responses against following points				
		Strongly agree	Agree	Disagree	Strongly disagree	No Response
05	Positive	10 (21.3%)	34 (72.3%)	03 (6.4%)	00 (0.0%)	00
28	Negative	00 (0.0%)	06 (13.3%)	31 (68.9%)	08 (17.8%)	02

The responses to statement 5 indicate that most trainees (93.6%, of which 21.3% strongly) had faith in the potential of training to improve communication skills. This was reinforced by their responses to statement 28, as most trainees (86.7%, of which 17.8 % strongly) disagreed with it and only 13.3% agreed with it. This shows that the trainees in general believed that skill in

communication is not only an intrinsic quality but can also be improved through training and practice.

However, the strength of this positive view is limited by the fact that the trainees felt that they had few communication problems, as discussed above. The effectiveness of any training also depends on the learners' realisation that they need it. One method of achieving such a realisation is self-assessment / self-analysis or reflection.

5.2.10 Summary of the SpRs' Perceptions of the Non-Clinical Component of Training

The above analysis has developed some understanding of the SpRs' attitudes towards non-clinical activities and training programmes for improving generic skills. This understanding informed the subsequent interviews and has shed light on the reasons for the trainees' disposition towards PBA, and is summarised below:

Importance of non-clinical activities and generic skills

- (i) Teaching was the most popular non-clinical activity, as nearly all (98%) felt that teaching juniors enhances their understanding of subject content and improves their communication skills.
- (ii) Medical audit was the next commonly pursued activity and 93.6% of the SpRs wanted to conduct it.
- (iii) 97.9% of the SpRs accepted the importance of conducting research and publishing findings for the growth of the profession, while 88.9% agreed that practising consultants should also conduct research.
- (iv) Nearly all the SpRs accepted the fact that journals offer useful information from the point of view of their practice and that reading them is an effective way of keeping themselves up to date. They also felt that writing a paper/case review/letter helped in the understanding of an issue.

- (v) Most (80.4%) felt that there is scope for time management in their work.
- (vi) The majority (75.6%) felt that consultants should be involved in hospital management and administration. Yet a large minority (24.4%) had the opposite opinion.

Potential of training to improve personal and professional qualities

- (i) Nearly all trainees felt that management skills are not completely innate and can be improved by attending training programmes.
- (ii) Similarly, 85.1% believed that leadership qualities might be improved by training.
- (iii) The trainees had varied opinions about the potential of behavioural training to improve their behaviour, but a majority (87%) believed that this behaviour could be improved even after the age of 25, most of the SpRs being around this age. This belief has positive implications for PBA, since trainees would strive to improve their behaviour only when they believed that it could be changed.
- (iv) 85 % of the SpRs accepted that communication skills can be improved by training and by making conscious efforts, but the majority believed that they did not need to improve them. The chances that they will take advantage of the relevant sections in the portfolio to reflect on communication problems and improve them are therefore small.

Implications for PBA and key areas to be explored in content analysis and interviews

In summary it may be said that a considerable majority of the trainees had generally positive attitudes towards the non-clinical component of training and its objectives related to the affective domain of learning. Similarly, the trainees generally appreciated the effectiveness of training programmes in improving their management, leadership, behavioural and other qualities. It can be inferred from this that a positive climate existed for the introduction of PBA at the QSA as far as its aim of increasing the scope of the curriculum in non-clinical areas and the affective domain was concerned. However, the following issues required further exploration during interviews and content analysis:

- (i) Why did 40% of the SpRs not consider it important for consultants to teach their real experiences? Though, a cornerstone of the philosophy underpinning PBA is ‘valuing learning from experience’.
- (ii) A considerable proportion of the SpRs did not see audit as improving medical practice and maintaining standards and some of them felt that it did not have any educational value. However, these SpRs appreciated the importance of audit in principle, but not the way it was conducted at the QSA; these problems at the QSA needed to be explored.
- (iii) Nearly all the SpRs appreciated the need for research, but the amount and type of research in which they actually engaged would be revealed by an analysis of the content of the portfolios. However, about 40 % believed that experience of conducting systematic research does not help in learning from day-to-day experiences. The reason for this view needed to be explored during the interviews.
- (iv) The finding that most SpRs felt that there is scope for time management in their work contradicts to the general perception at the QSA that the main reason for the small amount of non-clinical activity was lack of time. However, a large minority felt that they were overloaded and hence time management could not help. The reasons for these minority views needed to be explored.
- (v) The SpRs identified ineffective communication as the main reason for poor joint decisions, ineffective teamwork and problems with patients, but also indicated that they themselves possessed good communication skills. Perhaps a content analysis of the portfolios and the interviews would reveal the reason for such poor communication.

5.3 Perceptions of trainees regarding PBA

The non-directive interviews were conducted mainly in order to understand the process of portfolio preparation. This generated useful information related to the students' perceptions of assessment in general and the portfolio in particular. Although it was not the main purpose of this research, the students' views also indicated possible reasons for these perceptions. In addition, these views helped to illuminate issues related to the portfolio format, the process of preparation, and problems associated with its introduction at the QSA. Issues related to the existing assessment system were also raised in order to gain an understanding of the context in which the portfolio was introduced (see Appendix no. ix), since, Santora (1996:143) points out that *"Portfolio development is greatly affected by the context within which it takes place."*

Although no direct questions were asked about the SpRs' attitudes towards learning and formative assessment, the interviews also generated important information about these attitudes. It was also necessary to understand these attitudes since the effectiveness of a portfolio depends largely on the person's ability and willingness to take responsibility for professional as well as personal development (Cobb, 1994 cited by Smith and Tillema, 2001). Typical examples of all these views are presented and discussed in this chapter in the light of the existing literature, and this has generated some understanding.

As described in Chapter 4, these interviews were conducted as informal two-way conversations. However, the views of the SpRs regarding different aspects of the study have been gleaned from the interview data and synthesised under six headings:

- (i) SpRs' perceptions of the PBA
- (ii) Attitudes of SpRs towards formative assessment, learning and the portfolio
- (iii) Portfolio format
- (iv) Implementation of PBA at Queen's School of Anaesthesia.
- (v) Existing assessment system
- (vi) Compatibility of PBA with existing system.

The views of the SpRs on different issues were compared with each other in an attempt to gain insights into the reasons for the variations in their views. Some representative views are presented in the following sections for each issue. Views contrary to the majority opinion are also presented and discussed.

5.3.1 SpRs' General Perceptions of the PBA

An understanding of the perceptions of the SpRs regarding PBA was first obtained from the analysis of the non-directive interviews. The content analysis of the portfolios showed that their perception affected the way they attempted to prepare the portfolio. This perception is described below:

Focuses attention on targets

Nearly all the trainees felt that the portfolio made them aware of what was expected of them and focused their attention on the targets to be achieved. The view of SpR no. 13 is typical of the perception of many trainees in this regard. She argued that the logbook recorded only clinical activities while the portfolio also brought the focus onto non-clinical activities:

“But certainly as you get on in your training, it's more to do with what cases are you doing and what can you do, but when you become a consultant, a lot more is about what have you done in terms of management, training or teaching. There is so much more than the clinical things we have to be focused on. I think it (portfolio) makes you think about those other topics.”

Similarly, SpR no. 22 felt that it covered all aspects of the training and in a way provided a syllabus:

“.....first of all the things I liked about it was that it actually gives you some structure to what you're actually supposed to know and need to do in order to get a full education in anaesthetics. It provides a framework or even a syllabus for the specialist registrar training which is very good. It also helps you focus your thoughts on what you actually need to do” .

This is a positive comment, since it means that the portfolio appeared to help widen the scope of the curriculum. Friedman Ben David (2000) also argues that assessment reforms such as

portfolios help in further developing the multiple dimensions of the medical profession by widening the curriculum.

Provides Map of Growth

Most SpRs (about 80%) felt that the portfolio worked as a map of their growth since it recorded their achievements over a period of time and helped them to review these achievements. For example, SpR no. 16 felt that although the portfolio was not used in appraisal, preparing it had made him aware of his achievements. He expressed his experience as follows:

“I started the portfolio because I was having an appraisal, so I got a certain way through it. They didn’t ask to see it so I didn’t use it as part of the appraisal, although while I was filling it in I could read what I’d done so it makes you realise what you’ve done. It wasn’t used during the appraisal meeting but the run-up to the appraisal made me think about it.”

This view highlights the fact that even when the SpRs prepared a portfolio for assessment by others, it gave them some sense of achievement and this might also have motivated them to achieve more. Skemp (1979) argues that a sense of achievement is a transformative experience since within the inner realities of a person, creation breeds creation and learning breeds learning. According to him, intelligent learning raises new questions to be answered and thus it may prove to be an agent of its own expansion.

May be Used as CV

A considerable number of SpRs (about 60%) saw the portfolio as a kind of CV. Some saw it as a ‘glorified’ CV while some saw it as an extended CV. One of the SpRs suggested that it would be easy to compare candidates during an interview if all the candidates had their CV in the shape of a portfolio in the same format. Some of the typical views of the portfolio as a CV are given below:

SpR no. 7 felt that it was a ‘glorified CV’. However, he also related it to formative assessment.

“I see it as a glorified CV and I'm sure that's what it's meant to be. It's a way of organising your curricular activities into a manageable, standardized format which can be easily assessed and how deficiencies in training can be easily identified and hopefully rectified.”

SpR no. 8, on the other hand, related her portfolio merely to summative assessment, and saw its utility in the fact that it made it possible easily to compare trainees with each other, since every trainee would have a CV with same the structure. She argued as follows:

“Yes, I could see it as an extended CV when it comes to applying for consultants' jobs and that's its main function and that's the function for RITAs.and to make everyone's CV the same. Yes the structure so that they can easily look through CVs at selection and compare them.”

SpR no. 10 visualised it as a ‘continuous ongoing CV’ and as a tool for proving experience rather than as an educative tool for learning from experience.

“...I like the idea of a continuous ongoing CV because that's how I see it rather than having to prepare a CV each time I apply for a new post. I have an updated CV. I see it more as a tool for applying for further jobs or as documentation to prove my experience rather than an educative tool.”

These views show that there was some misunderstanding about the main use of a portfolio. Such misunderstandings would undermine its potential, since trainees might use it to project their capabilities rather than for honest reflection. Yet some SpRs appreciated that a portfolio is not something static and that it is, instead, dynamic in nature. This is clear from the words they prefixed to the term 'CV'. One SpR called it a 'rolling CV' and another referred to it as an 'ongoing CV', while words like 'extended 'CV' and 'glorified CV' were also used. These prefixes indicate that some trainees also appreciated the fact that a portfolio is more than merely a CV. Moreover, unlike a CV, a portfolio needs regular and frequent updating.

Tool for Assessing Continuous Professional Development

It is worth noting that the SpRs were conscious of their future needs. Some senior SpRs (studying in years 4 and 5) were able to appreciate that, in the near future, all consultants

would be supposed to maintain their portfolios to prove their continuing professional development. As a result, they took this opportunity to learn how to maintain a portfolio. The views of SpRs nos. 9 and 10 are typical:

“It's the sort of thing you could probably keep as a consultant as well and would be a good record of management coming back to ask how much Continuing Medical Education you have done, so you can look it up in your portfolio and tell them. You can show them the points that have accumulated so I am keeping up with education.” (SpR. no. 9)

“I also saw it as a forward thinking idea as in the not so distant future, consultants will be asked to keep such a record to prove their continuing medical association. By the time we're there, it'll be there so there's nothing wrong with starting that now. I've got nothing to hide and I saw it as a forward thinking move. It's revalidation before they've even become consultants so it's a good move.” (SpR no. 10)

Friedman Ben David (2000); Boulay (2000) and Brigden (1999) all argue in favour of the suitability of a portfolio for assessing the continuous professional development of consultants. However, the above views also indicate that sometimes, external factors or motivations may be more responsible for the acceptance or rejection of educational initiatives than the inherent characteristics of those initiatives.

Another Tool for Summative Assessment

A considerable proportion of the trainees (about 60%) perceived it mainly as a summative assessment tool or a tool to prove that they had done what they were supposed to do. For example, according to SpR no.10:

“I've seen it more as something to help me prove that I've done what I need to do. I've seen it more as an assessment tool.”

Similarly, SpR no. 11 considered that it was more for the teachers than for him. He expressed his perception as follows:

“.....and it's also a good way of people keeping an eye on what you're doing. You have to question whose benefit it is for and I'm not absolutely certain the best benefit is for me; I think it's more benefit for teachers.”

This perception contrasts with the widely held view in the literature (Meyer and Tusin, 1999; Dutt-Doner and Gilman, 1998) that a portfolio is a tool for learner-centred assessment. SpR no. 15 was very critical of the portfolio and, according to her, *“it is a load of rubbish”* with no utility for assessment. When asked to give reasons for her views, she replied that while it is suitable for recording progress, there is no point in writing down reflections. She argued:

“....., well that's something you either want to do or you don't and you can write whatever you like but at the end of the day, it won't change how you interact. You might be very good at making it up when you're writing or when you're on the computer but in actual fact, I'm not sure it makes much difference.”

But when informed that the main purpose of the portfolio was self-assessment and that there was no need to make things up, she responded:

“If the reason for doing it was that you were interested in how you were developing, then yes it would be very good, but the point is that most people do it because it's another thing they have to fill in and it's obligatory with no choice in the matter and therefore it's just another hurdle and you find a way of jumping over that hurdle. It's not self-directed. If it was a choice it would be quite interesting but it's not a choice - it's a force.”

When asked to elaborate on what she meant by ‘force’, her explanation was: *“You can't get through your next RITA without having your portfolio filled in and appropriately done.”*

This discussion shows that some SpRs felt that if the portfolio was purely for informal self-assessment, then it was going to be a very interesting experience, but if it was for formal assessment, it became a hurdle. Such views clearly demonstrate that the use of the portfolio for summative assessment like the RITA may undermine its formative and diagnostic potential.

It is worth noting that this SpR was also unaware that any meeting had been conducted to explain the purpose of the portfolio, and she expressed her desire to attend such a meeting in the future. When asked what was the basis of her views about the portfolio, she replied:

“It is informal talks with my colleagues about how little you can get away with filling in before it becomes a hassle. There are people who feel very similarly having seen and worked through it.”

This appears to indicate that the lack of a proper orientation created apprehension in some SpRs about the portfolio. Such preconceived apprehensions created a psychological barrier, thereby distorting the process of forming their own opinions based on their experience of preparing the portfolio.

The perception of a portfolio as a summative assessment tool created further confusion about its ability to assess trainees summatively. SpR no. 11 was concerned that a portfolio can only show that certain activities have been attempted, and cannot prove that learning has taken place. He argued:

“Yeah, it can show you've participated in things although it can't show you've learnt anything from them, like you've participated in an audit, set up an audit and you can say you've done them but it doesn't say if you're very good.”

According to SpR no. 14, it made her think about certain non-clinical skills but it was difficult to prove that the trainee had performed certain activities. She argued:

“I don't particularly see how - I mean it can get you thinking about what research you want to do and how to go about it but again, I don't see how it can prove you've read certain things.”

SpR no. 5 felt that a portfolio was a very subjective assessment tool. In her words:

“Because basically in my own opinion, it's more subjective than a logbook; a logbook can be verified.....”

These concerns with proving that certain activities had been performed and with objectively assessing these performances appear to be rooted in conventional notions about the assessments with a summative or normative purpose. Similarly, at the Dundee Medical School, students appreciated the relaxed, informal and friendly nature of the portfolio review process, but the lack of standardisation and objectivity and the individual nature of the assessment came as a shock to some of them (Davis *et al.*, 2001).

Interestingly, some trainees attached less importance to PBA since it was only a local initiative, and wanted to know if it had been accepted at national level. SpR no. 8 argued:

“... it might be ok in here but would it be ok in London or Edinburgh and that is my hesitation. I think it's a good idea but if it's national obviously it's stronger than if it's local.”

Similar arguments were put forward by other SpRs who wanted to make it mandatory in the whole country for the purpose of proving the work done by them. SpR no. 23 expressed her view:

“It should be for everybody, it shouldn't just be for here. If you're going to do it you're going to have to do it the whole country-wide and you're going to have to make these portfolios mandatory from day one..... and then you know it provides a documented record of what training you've had as it's been done.”

One SpR asked the following question:

“I was wondering how much of a standard it is across the UK - the portfolio and it's based on a college portfolio isn't it - the one that we've been given?” (SpR no. 12)

This concern for acceptability across the UK also seemed to be based on the mindset of norm-referenced testing which may take time to change. This point again highlights the need to educate trainees about the importance of the different purposes of assessment and of the different methods of assessment: namely, assessment by others and assessment by oneself.

Additional Paperwork

The majority of the SpRs (about 70%) considered the portfolio as additional paperwork. Although they appreciated its value, they felt that it was somehow not very interesting and hence they tended to postpone it until it became compulsory. However, one SpR was critical more of the medical profession than of the portfolio *per se*, suggesting that doctors are not good at documenting and that hence they may not like the portfolio:

“I know a lot of my colleagues - it's another sort of paperwork thing we all have to fill out and everyone will say, "Oh no, portfolio". Sometimes it gets put to the back all the time and it's easy to put things off but I can see the value of it.It strikes me as a profession or trainees or whatever, we are very bad with filling in forms and that's the only downside to the portfolio - that it's not just a couple of forms but a huge pile of forms to fill out.” (SpR no. 12)

Davis *et al.* (2001), in their study at Dundee Medical School, and Mathers *et al.* (1999), in their study on the use of the portfolio by GPs, also found that learners felt that portfolio-building involved too much paperwork and that it employed many of their resources. However, not all SpRs wanted to keep it pending and some preferred to keep it up to date:

“I think, I will not prefer to leave it to the last minute, I will like to do it whenever I find time.”
(SpR no. 4)

It may be inferred from such views that the regularity with which trainees are going to maintain their portfolio may differ according to personal attitudes. Moreover, there is nothing wrong if the effectiveness of the portfolio varies from person to person, since a portfolio is considered to be a learner-centred tool and its ownership rests fully with the learner (Wenzlaff, 1998). In theory, at least, it means that a learner can learn at his/her own pace based on his/her idiosyncratic method of learning. The issue of concern is not that different trainees will prepare portfolios in different ways, but rather that trainees should use their portfolios as regularly and as intensively as possible.

Assessment of Clinical Activities

The majority of the SpRs (about 65%) suggested that a portfolio might be suitable for non-clinical activities but might not be useful assessing clinical activities. SpR no. 23 was very candid about this issue, arguing that it cannot help in assessing clinical skills but that it may help in assessing non-clinical skills. However, in her view, clinical skills alone are sufficient for becoming an anaesthetist, while for becoming a consultant non-clinical skills are also needed. When asked about the importance of a portfolio as an assessment tool, she replied:

“Not from a clinical point of view. I don’t think this can assess whether I’ll make a good anaesthetist or not. It’s difficult, becoming a consultant is not just about giving anaesthetics it’s also about teaching, audit, communication, management and being able to assess future trainees. So everything is more related to being a consultant rather than being an anaesthetist.”

This impression may be due to the fact that the portfolio has brought non-clinical activities into focus in an unprecedented way. Davis *et al.* (2001) also found that undergraduate medical students felt that the introduction of portfolios reduced the focus on clinical activities. There is a need to make it clear that the purpose of a portfolio is not to divert attention from clinical activities but to focus it on non-clinical activities simultaneously. Moreover, trainees may be informed that learning accrued from non-clinical activities also indirectly improves clinical skills.

5.3.2 Attitudes towards Formative Assessment, Learning and Portfolio

In this study no direct questions were asked to ascertain the attitudes of the SpRs towards formative assessment, learning and the portfolio. However, informal discussions about the existing assessment system and experiences of portfolio preparation revealed their attitudes towards learning and assessment. An understanding of these attitudes is important for designing an effective assessment system. The following section explores this understanding.

Conflict with Existing Images of Learning and Assessment

For nearly all the SpRs, this was their first experience of preparing portfolios, and it created a conflict with their existing images of learning and assessment. Tillema (1998) also reported that the portfolio provided feedback about strengths and weaknesses in performance, but the way trainees received this feedback depended upon their existing ideas or beliefs concerning learning and assessing. The majority of the SpRs (about 80%) were not clear about the exact purpose of portfolio-supported assessment, and they felt that they did not know how to self-assess or how can self-assessment might help in learning. The views of SpR no. 24 were typical:

“I mean is it just simply a record of what you’ve done or should it be used as a sort of learning tool and who is going to read it at the end of the day.... my experience so far is that I’ve done my portfolio and no one’s actually read it....., perhaps it’s just a purely personal thing. But I think that my cohort if you like coming through just aren’t familiar with self-evaluation.”

A considerable proportion (about 60%) found it difficult to describe what they had achieved by attending a programme, or what went well or badly. SpR no. 2 argued typically:

“Things like meetings you’ve been to, it’s difficult to recall which meetings you’ve been to and perhaps a summary of what you thought of it, but again, it’s going into a lot of depth that’s too ..., like why would you want to go on it and what you thought you’d get out of it and the whole thing gets over the top.”

Such statements indicate that, at the beginning, SpRs need some orientation for preparing a portfolio. This SpR suggested a need for some guidance:

“I think it would be useful then to know more about the purpose of this portfolio,..... and perhaps there have been meetings that I’ve missed to explain the purpose of it, but I haven’t had any communication as to the purpose of the portfolio and the idea behind it and where it’s leading.” (SpR no. 2)

Moreover, some SpRs asked that examples of good portfolios prepared by others be shown to them so that they could get some ideas about preparing their own portfolios. SpR no. 23 felt that seeing a prepared portfolio would have made it clear what was expected from them. She argued:

“Sometimes that’s very difficult to know what’s expected of you....., it would be nice to see an example so that somebody’s written out for instance this is what we’re expecting people to have written down or to have shown and from that point of view it makes it easier for people to say oh yes you know I did something similar to that or you know I didn’t do something like that.”

She further suggested that there should be someone who should guide them during the preparation:

“I don’t want to spend hours and hours doing things and then somebody turning round and saying well that’s not relevant. I want to write this out and I want somebody to look at it and say good that’s great you know you’ve shown that you’ve done that and it’s all relevant and it’s clear.”

These requests that prepared portfolios be provided as examples and guidance at the preparation stage may be considered genuine if the trainees ask for them after trying their best to prepare them on their own. However, if they wanted these examples in order to avoid

thinking for themselves, then it may be said that their demands are rooted in the ideas of learning they have formed over the years based on didactic learning experiences. In a didactic teaching-learning process, trainees are told everything and they neither seek out knowledge nor create it on their own (Brigley *et al.*, 1997). This is therefore an issue to be debated: whether trainees should be shown some prepared portfolios and be given help in preparing them, since doing so may reinforce their habit of learning from others rather than developing attitudes of self-learning, which is the underpinning reason for promoting PBA.

Motivation Level and Attitude towards Self-Directed Learning

The SpRs were not asked questions about their motivation level and attitude towards self-directed learning. Yet the discussions generated information which indicated that most of them (about 80%) were more externally motivated than self-directed. For example, one SpR suggested that questions such as ‘what do you want to achieve next year?’ were difficult to answer. This indicated that such trainees did not want to plan their training in advance and strive to accomplish that plan; instead they intended to take training as opportunities became available to them.

“Yes, as some questions are very vague and you don’t know what they’re asking..... some questions I didn’t even know what it meant, like when it asks what you expect to achieve next year and I find it difficult to fill it out. I don’t know what I want to do, so having a question like that put in front of me; I know it’s a problem and that I have to think about it.” (SpR no. 17)

Some trainees also showed an attitude of compliance. One SpR commented that:

“.....but it's certainly made me aware that I will have to do that. I knew that anyway, but the boxes to fill in make you aware of how you'll fill the boxes in, so I'm sure it will guide you in some way to how you achieve that.” (SpR no. 7)

Similarly, another SpR felt that he might use the portfolio to justify how he had passed his time in the hospitals:

“Having got it, it is a good way of recording and maintaining information about what you've attended and whether that's appropriate in the future for continuing medical education and how you justify your time in a department....” (SpR no. 9)

The majority of SpRs (about 80%) prepared their portfolios mainly for the RITA. The views of SpR no. 5 are typical; according to her she would prepare it when she had to attend the RITA:

“I have started but it's an ongoing process as it's so big. It's on disk and it's under way but it has to be done before the next RITA in November.”

When the SpRs were asked about any doubts they had about portfolio-supported assessment, they raised the following types of question:

SpR no. 11: *“When are the RITA panels going to take the portfolio documents as being the most important document?”*

SpR no. 12: *“Is there going to be a stage where the portfolio is going to be regularly inspected every couple of months or, do you know?”*

These questions indicate that such SpRs wanted the RITA panel to inspect the portfolios in more detail so that their efforts could be recognised for the purposes of summative assessment: that is, promotion to the next year of training

Such views indicate that the SpRs were mainly preparing portfolios either as a result of external motivation or of the necessity of passing a summative exam. Some SpRs seemed to be accustomed to compulsion, to the extent that the trainees would not prepare a portfolio unless someone monitored it regularly. SpR no 6 argued:

“And that is the main problem with the portfolio, that it requires a regular input. And leaving people to do it on their own is not good; because people may think that well I will do it next week or maybe next month. Maybe there should be some system, where an education supervisor should monitor it on a regular basis so that people keep it up to date.....”

This type of attitude may transform the portfolio into just another conventional tool for formative assessment, as Challis (2001:438) warns:

“How quickly will they find the way to ‘Play the game’ by selecting what the examiner wants to see, rather than use the portfolio as their story of personal and professional development? These are crucial questions for the curriculum designer to consider.”

Ecclestone and Hall (1999) also report that, as a result of the images of assessment they had built based on experiences at school, students in post-compulsory education avoided participation in peer assessment and did not engage deeply in self-assessment, seeing any assessment as principally the teachers’ responsibility. Orientation of trainees about the purposes, potential and nature of a portfolio may be one effective approach in such a situation. However, a few SpRs were exceptions and, according to them, it was better to have a portfolio as an informal tool of assessment. One SpRs expressed her feelings as follows:

“It's not self-directed. If it was a choice it would be quite interesting but it's not a choice - it's a force and therefore ” SpR no. 15

As discussed earlier, when I asked her specifically what she meant by force, her reply was:

“You can't get through your next RITA without having your portfolio filled in and appropriately done.”

This is the dilemma faced by the promoters of PBA since, on one hand, PBA is more enjoyable and effective without compulsion (Graves and Sustain, 1992) but, on the other hand, some trainees do not engage in the process of PBA unless there is some compulsion or external motivation. Sometimes external motivation may lead to internal motivation, as in the cases where SpRs were initially reluctant to fill in the portfolio but found it interesting and useful later on. Moreover, it seems that some SpRs started to see it as an unavoidable part of their profession. This belief stemmed from the fact that GPs were also being asked to keep a portfolio. The positive aspect of this realisation was that it was accompanied by the understanding that it requires a change in attitude to maintain the portfolio. The view of SpR no. 12 represents the feelings typical of this minority.

“I think a lot of people - it's inevitable as you see it worldwide in industry and everything really so and like anything that's new, people are reluctant but I think the difference is you'll

have to do it for the rest of your career, it's not just your training. It's about changing your attitudes. It'll take a while to get established but when it does people will realise it is part of the course."

It may thus be inferred that, as trainees gradually start using portfolios, they may see a value in them. Such experiences provide a ray of hope that the process of preparing a portfolio might realise its potential by leading to a change in attitudes. Yet there are many factors which militate against this hope, including the dominance of summative assessment in medical education, images formed from the didactic transmission of knowledge and attitudes of learning in order to pass exams, rather than self-directed learning for sake of knowledge.

Personal Fears

A considerable proportion of the SpRs (about 30%) directly or indirectly expressed their fears about developing a portfolio. However, only one SpR was candid, having browsed through but not started to prepare the portfolio. She felt threatened by the idea of preparing it:

"It's quite big and I just thought it would be more like what we've already had, with lots of questions that are quite difficult to answer. Well I have to write more and make it more creative and I'm not very good at writing or being creative, so it fills me with dread."(SpR no. 17)

When I suggested to her that creativity was not needed: instead she had to describe her experiences and reflect on those experiences, she reacted as follows:

"Well, you have to remember what your experiences are and you have to be able to interpret them, which is not what I'm good at."

The words 'which is not what I'm good at' indicate feelings of insecurity and a fear of being judged. However, on being asked whether she would like to see some examples of a prepared portfolio, she said that this would be a great help since some of questions were quite vague:

"Yes, that might help; just ideas. I know some of the questions.....some of them are quite vague, like the one where you describe the day that you became an important part of the team, but being an anaesthetist, you're in a team all day every day, so hopefully you've done that all day every day."

This desire for help creates a dilemma about whether her fears were solely the result of personal traits or also arose because she had never experienced self-evaluation or self-learning.

SpR no. 2 reflected this barrier:

“As doctors in training, we’ve never been asked to analyse our feelings or impressions of something we’ve done or something we’ve heard, so it’s something we’re not used to doing as well.”

Smith and Tillema (1998) also found that about 65% of the trainees had difficulty in accepting their weaknesses and especially in pointing them out themselves, and such trainees also avoided asking for specific support when needed. Smith and Tillema (*ibid.*: 200) noticed that:

“They preferred positive, general feedback and almost feared a closer look into areas of under-achievement.”

Whatever the reasons for personal fears, they should be resolved, since trust in oneself is crucial for harnessing the full potential of a portfolio (Helen, 1997).

Social Fears and Barriers

Another fear was of exposing one’s own weaknesses to others in the process of self-evaluation. About 40% felt that the portfolio contained sensitive information that might create controversy or be used against them.

“.... it’s a written document of what I feel and sometimes it is better if people don’t know what you feel. I don’t mind saying what my opinion of a meeting is....but I don’t want it thrown back in my face in a few year’s time. The less there is on paper, the less anyone can use against you.” (SpR no. 2)

It is clear that this SpR felt threatened by the idea of disclosing his feelings in writing. There may be different reasons for such suspicions, based on past experiences where they might have been victimised because they had given a frank opinion.

SpR no. 5 felt that females were more critical of themselves and they reflected more and so could reveal more information about their weaknesses in the portfolio compared to male

SpRs, thereby putting females at a disadvantage. She was therefore sceptical about true reflection:

"I would be cautious about that and especially with females as we're always more critical than the boys and I don't think they would admit to having weaknesses at all."

SpR no. 24 felt that critical incident writing was important for reflection and for the sharing of learning, but SpRs did not write up critical incidents because it affected their image:

"I mean again on paper it would probably be a useful thing to put in but there's still that sort of hesitation. If you've got a partition in your portfolio that's full of critical incidents someone might think you've got a lot of critical incidents there, what have you been doing? They're going to think you know you're a dodgy practitioner and making all these errors or are you just being conscientious at reporting them."

Whatever the reasons for such fears and suspicions, it may be inferred that these created obstacles to the appropriate use of portfolios by some SpRs. Smith and Tillema (*ibid.*:195) also reported that:

"Self-protection, leniency, fear of under-achieving and ignorance about setting relevant standards may all lead to a collection of unauthentic and invalid portfolios."

Yet these fears and concerns might be reduced to some extent by completely dissociating the portfolio from summative assessment, so that the choice of sharing their portfolios would rest with the trainees and they would be free to share them only with someone they trusted sufficiently. Trainees could also be informed that they could share different parts of their portfolio with different people according to their nature and their faith in the capability and honesty of the person with whom they are sharing it. Helen (1997) also found that, apart from trust in self, trust in others is also a key factor in the effective use of portfolios. She reports that only when students begin to feel safe do they begin to bond with each other, and this results in the development of a palpable energy or synergy that provides support for the endeavours of each student. In a way, reflective practice develops in the context of a conversation occurring in an environment of trust.

Not only were the SpRs fearful of revealing their weaknesses to others, but they also had some inhibitions about asking for feedback from others. Some SpRs thought that others would not give true feedback, especially negative feedback, since people do not like to hurt other people's feelings. SpR no. 2 gave a typical example of such thinking:

"... I'm never going to fill in, for example, the one on communication at the end when they're suggesting you take someone with you to listen to your communications with your patients and then comment on it afterwards..... but most of the time, especially if it's the nurses, they won't give you an honest answer - they'll tell you that you were fine..."

Such views indicate that there might be some genuine problems resulting from the hierarchical structure of hospitals, since subordinates might hesitate to give honest feedback while superiors may not have time to do so. Similar views were expressed by trainee no.24:

"I mean the advice given about communication skills, when I saw that I just thought it's just not feasible, I'm not going to do that. You know I can't see myself asking somebody on the ward to come and listen to me and even if you did nobody would give you an honest feedback."

However, some of the SpRs appeared to be quite critical of their tendencies in accepting feedback. Moreover, they appreciated that sometimes they did not have the courage to accept honest feedback and this was one of the stumbling blocks to harnessing the advantages of any assessment process:

"I think again, it's vital you have more than one opinion and you have lots of different people giving feedback and there can be a tendency sometimes, to not get any feedback at all. I suppose it's up to us to go and seek it but I suppose not everyone wants to hear someone being honest with him or her." (SpR no. 12)

These views indicate that images of the reality of the workplace as well as personal fears hinder the processes of collecting feedback. However, such SpRs may benefit from counselling to clear their suspicions and to encourage them to engage in free and frank reflection. Peterson (1995) argues that even in the case of self-directed learners, it is necessary for them to obtain feedback and informative support from others to supplement the self-assessment carried out by them. Butler and Winne (1995) also support this view and suggest

that the benefits and success of a portfolio as a reflective learning tool depend to a great extent on its use in receiving valid and regular feedback. Such feedback is possible only when a portfolio is shared with others.

It is Insulting

SpR no. 14 felt insulted by the introduction of the portfolio, arguing that it was based on an assumption that SpRs are not self-directed learners. She was very emotional about this issue and repeatedly conveyed her feelings in the interview. According to her:

“I have a responsibility as a doctor to see that there are deficiencies in my training and doing something about it. If I feel that I'm missing out on paediatrics, for example, I'll do something about it because I want to be a well-rounded doctor. I don't need a piece of paper to tell me to take action. The RITA points out the speciality you miss out on. Things like that irritate me.Portfolio is insulting because it's taking my normal thought mechanisms and making them into something that is assuming I don't normally have those thought processes. It's insulting my intelligence and my ability to take charge of my career. I think that's what I don't like..... I'm capable of looking at what cases I need to do without resenting, having a bit of paper jogging my memory. Presumably I will already be taking action as best I can.”

However, this SpR also felt that reports by consultants were also based on personality rather than performance and that the RITA should not be formal but informal, like an appraisal. In fact, she was against most of the assessment:

“I believe that lack of trust in a professional is just appalling and demoralising to be treated like that.The fact that we're having appraisals should be sufficient. ... So it'll help to be seen to be doing but personally I think that is just pandering to public demand for us to share that we are competent. That won't show anything. The only way to show you're competent is to see them work in theatre.”

These strong feelings may be treated as an exceptional case. Yet her views cannot be rejected out of hand since a considerable proportion of the SpRs (about 25%) also had such feelings, though to a much lesser extent. Moreover, she makes the point that a portfolio may be seen by some medical professionals as one more instrument to prove their competence to politicians and officials. Murphy and Torrance (1988:9) draw on Hargreaves (1988) and suggest that:

“The force of Hargreaves’s argument, as we see it, is that assessment is not necessarily bad, but every assessment initiative should be viewed with suspicion until it becomes clear what curricular or socio-political aims are embedded within it.”

This may be even more true if the SpRs see a portfolio as a “Dossier Portfolio” rather than as a “Learning Portfolio” (Smith and Tillema, 2001). If such feelings are not removed, they may undermine the potential of portfolios in the present socio-political climate where professionals, including medical professionals, are being questioned and their autonomy restricted (Sox, 2002)

It is worth mentioning here that her belief that portfolios were thrust upon them for control purposes was so strong that at the end of the interview when I asked her if she would like to share her portfolio, she replied only if she prepared it; and her dislike for portfolios was so strong that she has not still not prepared it.

Sections Related to Interpersonal Skills

Some sections, such as communication, teamwork and management, were considered more difficult to prepare and less useful for assessment purposes. Nearly all the SpRs held such views. SpR no. 24 argued typically:

“ I think probably compared to a lot of people my time management is quite good. But I mean how do you put that into, what is the evidence that I’ve good time management?. . . . I suppose a lot of what’s down there we’re probably all doing subconsciously anyway without realising it, and I find that it’s awkward then to transfer that onto paper.”

Such opinions show that some SpRs believed that they were quite able in personality-related skills, but these views do not corroborate the major reports directing medical education (GPEP report, 1984; GMC, 1993 and Calman *et al.*, 1999). The above views also indicate that some SpRs felt that they reflected on interpersonal skills subconsciously. It seems that there is a need to inform them that there is a difference between casual and systematic reflection. Writing down thoughts engenders systematic reflection (Biggs, 1999:173), resulting in further improvement of interpersonal skills, and it also makes it possible for them to share their

written reflection with peers or consultants. Similarly, Eisner (1991) suggests that reflective writing about experiences modifies and organises students' perceptions of these experiences and enables them to be integrated into prior learning or used to initiate new learning. However, even if the SpRs wished to write in this way, the majority found it difficult. SpR no. 13 expressed this problem thus:

“One or two of the bits I found strange, like the communication bits at the end which I haven't actually, I sort of read through them but didn't actually do anything because sometimes I find those things difficult to put down on paper....”

Such statements indicate that most SpRs found it difficult to write on issues to do with communication, teamwork, time management, etc., while they found it easy to describe the clinical and non-clinical activities they performed. Further discussions with the SpRs revealed two main reasons for this. First, such issues were very complex and it was difficult to comprehend them and then to sort out what to write down and what to omit. Second, some SpRs who were able to comprehend the issues tacitly could not find the proper words to describe the situation or the issues. Tanner (2000) also reported that students found it difficult to express their views in writing, but that sustained use of a portfolio results in an improvement in writing ability and communication skills.

SpR no. 13 further suggested that it was difficult to describe things in writing and that she would prefer to talk about these things with colleagues. When I asked her why it was difficult, she replied:

“.... not necessarily your fault but just that something bad has happened to the patient, often it is difficult to put down into sentences what has happened. I think it's much easier to chat with someone who knows the subject so that they can understand some implied bits but if you put down what you said it probably wouldn't make a lot of sense. Maybe it's my problem with getting it down in words onto paper.”

When I asked from her to confirm that she meant it was difficult to describe the context, she replied in the affirmative:

“Yeah, often you have to describe what the first one-call was doing and how you were all trying to do something to the patient and it went wrong and it doesn't flow happily if you try to write down how the problem came about, whereas if you're talking to someone it's different I think.”

It may be inferred from the above views that the trainees believed that describing the whole context in writing was difficult and time-consuming, and that if the context were not fully described, then responsibility for the problem might be fixed erroneously. Such trainees need to be aware that the purpose of writing and sharing a portfolio is to generate discussions about any problems they encounter and not to fix responsibilities for mistakes. Moreover, it is not necessary to describe the context in full detail since details can always be provided during discussions.

Reflection

Generally, the SpRs seemed to see the portfolio as helpful to them in recording their experiences, but they were not sure about its potential to improve amount and quality of reflection on those experiences. Some of them had started to appreciate its potential in this regard, but this realisation was limited to the subconscious level, and they accepted it only after probing questions during the interviews for this study.

For example, SpR no. 9 appreciated the fact that reflecting on their portfolios would enable them to see a trend in their training over a period of time:

“You might see a trend working through the 4 or 5 years of meetings you've gone to and the education you've received.”

The views of SpR no. 4 are typical of the views of the majority of the SpRs:

“I think only some people will be able to use it that way, because some people by nature are reflective, who look at their work, some people are just not. So the question is, can portfolio make people reflective who are not so, it might be that by writing things down they may find that they have done what and they have not done what, but about quality of performance I do not know.”

It is clear from such views that the trainees felt that a portfolio might engender reflection on the quality of training as a whole, but it is not clear that a portfolio would be similarly effective

in promoting reflection on the quality of individual performances. Moreover, most of the SpRs, like no. 4, thought that the habit of reflection is an innate quality which cannot be learnt. Some SpRs did not see any educational value in it and perceived it as a tool for recording only. SpR no. 10 explained:

“As far as continuing education goes now, I mean again anything from the portfolio itself, it's not an educative process itself except a chance each time I've been to a meeting to think about what was good and what was bad. There is some educative value I suppose.....”

But when asked to elucidate further (*“You said that you have written about the good and bad aspects of meetings, did it force you to think about your performance as a whole?”*), he realised that replying to questions does prompt thinking, but he was not sure about its effectiveness. He argued as follows:

“Well yes, I do have to think about it, but whether I have then chastised myself or thought I should do more. Like if a question asks that if you do a certain thing and you say no, it makes you think that next time you'd better do what it is you hadn't done. I'm not sure how much good it is stating what was good or bad, except as a demonstration that I have thought about good things and bad things about meetings. I'm not really sure how that would benefit me. Again I guess it's a prompt when I look back over it, having read that it'll become clearer in my mind than if it was just going on in my memory.”

SpR no. 23 had doubts that reflection is important in successful cases and argued that it is only needed in the cases of failure. In her words:

“Whether that's important if you're a successful, if you're successful then it's not so important what you did if you weren't successful and it's obviously more important to work out why you failed ...to find out anything to do to improve that...”

Her view is typical of the feelings of many of the other SpRs, who believed that formative assessment was needed more for weak trainees. Such beliefs indicate a lack of understanding that there is always scope for improvement in performance, and that reflection by self or feedback from others help in improvement.

SpR no. 24 held the view that most people reflect subconsciously and that if some people do not reflect, it is difficult to change them. He further assumed that the purpose of the portfolio is to show that you are reflecting on your performance. He argued:

“And I suspect there are trainees as well who don’t reflect on their practice and just drift through life doing the work. And how you get to them to start reflecting I don’t know. I think it’s probably something no one’s going to change overnight. And I can see the motive,... You’ve got to show that we’re constantly evaluating what we’re doing, where we’re going and what we want to achieve. But I think it’s going to take time to adapt to the idea of having to make it more overt and start writing it down. ...I just feel uncomfortable with it”.

Such SpRs failed to understand that the main purpose of a portfolio is not to prove anything to anybody but to improve oneself, but the cause of this misconception does not rest only with the SpRs, since the whole assessment culture and their own past experiences contribute to it. It is difficult to develop any firm understanding about the effectiveness of the portfolio in engendering reflection only from the views of the SpRs. The interviews show that the portfolio improved the amount and quality of reflection on the training as a whole, but was not similarly successful in promoting reflection on single performances. For them to understand clearly the effectiveness of PBA in fostering reflection on single performances, the trainees need more time to acquire a substantial experience of preparing a portfolio.

Self-Assessment

A considerable proportion of the SpRs (about 40%) appreciated the fact that the portfolio provided them with an opportunity to participate in assessment processes. The views of SpR no. 21 were typical:

“That's very good I think, because at least it's the best way. as the trainee should have the chance to assess himself and then express it. I don't know if it's going to be looked at or not but there is a place where you can assess yourself and that's very good really.”

A majority (about 60%) generally agreed that the process of preparing a portfolio (PPP) promoted self-reflection, but they were not sure about its effectiveness, and also demonstrated psychological barriers to self-assessing, as the views of SpR no. 16 reveal:

“It does force you to look at yourself but whether that makes you self-critical in an objective way, I’m not sure. It does force you to self-assess though.”

During a response to another question, the same SpR suggested that he and other SpRs did self-assess regularly but that it was neither systematic nor objective:

“I know personally my continuing assessment of myself is very subjective so you come away from one thing thinking you’ve made a mess of it, then you come away from something else thinking you’ve made a better job of that.we are all assessing our performance to a certain extent. In terms of critical management, probably every session, in terms of progression and professional development, it’s probably every month.”

Different types of apprehension and doubt existed in the minds of the SpRs. For example, SpR no. 17 felt that they would not be able to identify their mistakes and hence there was no point in engaging in self-assessment.

“I don’t see how it can, because I’m writing down ... I’m not gaining anything by putting down what I think on paper. If it involved a consultant going through it with you, then there may be a bit more, but you know, there are no additional ideas that went into it, apart from what you know yourself.”

In a similar vein, SpR no. 19 opined that you could not teach self-assessment to someone; it was a quality inherent in an individual, and so formal assessment should complement it:

“I don’t think as a method of assessment, it can work in isolation as I said Most of us do reflect over the day’s events.... but some people... just won’t, as it’s not in their psychology to do so. Because everyone doesn’t work in the same way, it needs to be complemented by formal assessment I think.”

Such beliefs may be obstacles to realising the potential of the portfolio. It may also be true that the habit of reflection is an innate quality and that different persons may have different aptitudes for it. However, reflection, like most other innate qualities, may also be improved by focused effort (Boud, 1994). Moreover, such views were based on the misunderstanding that self-assessment was going to replace assessment by superiors. There is a need to convey the fact that self-assessment or reflection and assessment by superiors may reveal different shortcomings in the learners. In addition, self-assessment is designed not only to point out

mistakes; it can direct attention towards more effective ways of dealing with a situation in day-to-day practice (Fazey, 1993). The design of the portfolio should take such tensions into account as Challis (2001:438) argues:

“The trick to resolving some of the tensions here lies in designing a portfolio thatassesses those dimensions which are not better assessed in another way.”

Some of the SpRs (about 50%) were concerned about how to assess whether they were reflecting properly or not. The views of SpRs nos. 4 and 6 are typical:

“Is there is some mechanism, where supervisors going through the portfolio can gauge how self-reflective you are in portfolio, and if you are not then the supervisor can address that issue and can say, see you are not looking at your work in a considering manner.” (SpR. no. 4)

“You may be collecting data and filling in the portfolio and thinking that it is great but really it is of no use till some body looks at it and comments on it whether it is OK or not. So somebody should be involved with you.” (SpR no. 6)

The above views indicate the important point that, despite their sincere efforts, some SpRs may not know whether they have reflected properly or not. Some guidance about the quality of reflection is therefore needed (Argyris and Schon, 1974). SpR no. 24 felt that it was difficult for SpRs to evaluate their own performances since they had not done so in the past:

“The people of my generation who’ve never had anything like it..... I mean, I came through what was like great big lecture theatres, very didactic, you took notes and you have to read the books and your notes to pass the exam. That was your medical training. I’ve never had to formally self-evaluate myself. I’ve probably been doing it subconsciously but not formally....”

This is an important point, and the Director of School also confirmed during informal discussions that there was no provision for self-assessment at undergraduate level or during the PRHO or SHO level of work-based training. And so for the SpRs, the portfolio was their first experience of any kind of formal self-assessment. However, in the UK, self-assessment has already been introduced at primary and middle education level to a considerable extent and

when pass-outs from this system reach SpR level, they may not have such problems. SpR no. 23 argued that it was not possible to assess yourself, since psychologically we do not like to find out our own faults:

“I think it’s very hard to be objective about it when you’re trying to appraise yourself and it’s always natural to highlight things that you think you did well and play down the things that went badly. Nobody wants to remind themselves of the things that went badly.it’s far more difficult to be objective about your own abilities.”

For one SpR, it was difficult to self-assess since it is frightening to look within yourself:

“.....but I think actually being introspective and saying, "Well I did this badly", you don't want to look too deeply into your deepest, darkest faults. I think it makes you look at what you've done and what you still need to do but it's not necessarily a process I enjoy.” (SpR no. 13)

The above views indicate barriers such as a fear of damaging one’s image of an ideal self (Rogers and Freiberg, 1994) or under-estimation of one’s own ability to identify one’s shortcomings. Thornow (1993) also pointed out that a deep level of reflection essentially means opening oneself up to more specific feedback which can be threatening to one’s self-esteem. These fears are a major hindrance when starting self-assessment, but as Dewey (1933) has suggested, thinking liberates students, and so only once they start thinking, they can appreciate the power of thinking and start enjoying thinking: in a sense, thinking begets thinking. Therefore, if some kind of counselling or guidance were provided at the beginning to support those learners who want to engage in self-assessment at a deeper level, they may overcome such barriers (Stone, 1998). However, a preliminary condition for providing such guidance is that the students must be prepared to reveal the problems they are facing to the person from whom they want guidance. This is possible only when students have complete trust that the person will not exploit this knowledge of their weaknesses (Helen, 1997). Similarly, Haney (1992) also argues that for effective communication to take place between two persons, trust is crucial. Eastern religions, such as Hinduism, Buddhism, Jainism, Sikhism

and Sufism, also insist that in order know yourself two things are a must: namely, a competent guru and a complete trust between that guru and you.

SpR no. 19 had a strong belief in formal assessment and did not agree that self-assessment could help people. Even when I suggested that when SpRs become consultants, nobody is going to inform them about their mistakes on a regular basis and that hence SpRs should learn to assess themselves, her reply was that there should be a formal assessment system for consultants as well. Although her record shows that she is very good academically, her beliefs meant she had not prepared her portfolio, beyond filling in her name and qualifications, by March 2002. She argued:

“Yes, I agree that it seems an artificial situation to assume that the day you become a consultant from being a trainee one day to a consultant the next day that suddenly you will make no mistakes; that’s an artificial situation. I suggest that some formal assessment for consultants is necessary.”

Such views show that some students have beliefs rooted in the summative assessment which has dominated the education system. Moreover, it is difficult to change such views in a short period, and it may be only after a long experience of self-assessment, that trainees will learn that self-assessment is a necessity for continual improvement professionally in the context of highly complex professions such as medicine (Zidon, 1996).

Images of What is Important

A minority of SpRs (about 20%) felt that there was no need for components of training other than those directly related to the development of clinical skills. SpR no. 11 argued typically:

“ What makes a good anaesthetist is someone with good clinical skills,The portfolio looks at the other side of thingsextra-curricular activities are what it focuses onand although consultants do a bit of that, they don't do a lot of extra-curricular activity. The majority of consultants concentrate on the clinical side and the rest of it goes by the by.”

Pencheon (1998) and Metz *et al.* (1994) argue that it is important to learn non-clinical skills since they contribute to the effective utilisation of clinical skills: the portfolio was therefore

designed to focus on non-clinical skills to encourage trainees to appreciate their importance. But if SpRs hold beliefs such as those above, a portfolio alone cannot be effective in motivating learners to engage in non-clinical activities. This creates a catch–22 situation. More time, therefore, is needed to draw conclusions about the effectiveness of a portfolio in such extreme cases.

Habit of Record Keeping

A number of SpRs already had the habit of recording their clinical and non-clinical experiences in some form (that is, on computer or on paper) and for them portfolio preparation had been a very easy and smooth process. SpR no. 4 explained his situation as follows:

“I do have in written form elsewhere, so for the next RITA it is going to be quite an easy task to just cut and paste effectively from one document into the portfolio document.Yes, I have a logbook of my cases, which I keep on Microsoft Access. As a database, so that is quite easy to integrate, how many cases I have done in a speciality, or whatever. As for management and teaching things I have been involved in, I keep paperwork for them, so it is quite easy to provide the summary of what I have done and some examples to include as well.so I can show what I have done on what date and can also tell about the methods employed.”

This indicates that effective use of a portfolio and consequential benefits from its preparation may also depend on the SpRs’ existing habits of recording their performances. It is claimed in the literature that the process of preparing a portfolio (PPP) helps in developing the skills necessary for communicating and recording experiences (Dutt-Doner and Gilman, 1998). But it seems that the relationship between the habit of record keeping and PPP is symbiotic, and hence SpRs who already possess this habit might find it more convenient to prepare their portfolio, do so in better ways and consequently derive more benefits from it.

5.3.3 Portfolio Format

How PBA is received by trainees also depended upon the format of the portfolio (Challis, 2001:437). Challis draws on Van der Vleuten (1999) and argues that the success or failure of the assessment tool largely depends on the design of the tool for the purpose, and this is also

true for a portfolio. She further warns that a portfolio may be rejected by the learners if it is badly conceived or makes inappropriate demands on them. Hence, trainees were asked their views about format and these views can be grouped in the following categories:

Big Document: too detailed, too specific

Nearly all the SpRs, cutting across gender, seniority, ethnic origin and level of competence, commented that the portfolio was a very big document. But what is more significant is that most of the SpRs gave first priority to this characteristic while replying to the question: "What is your general impression of the portfolio?" The views of SpR no. 1 typically represent the perception of the majority of the SpRs in this regard.

"First impression is that it is very big[laughs]..... That is the thing that initially it can be it is a huge document at the end of the daywhen I got into it, I can see the advantages to it as well, Just you can overcome your initial, kind of.... you can see, and as I pointed out you have to build a whole thing in it, you know a structure too, to fill in your experiences as well, So , I think I have started to see some value in it as well."

However, although this trainee saw it as a big document at the beginning, once he started working on it he also realised its value. Similarly SpR no. 2 said that:

"My first impression is that it is too long..... A lot of the areas we fill in require a lot of thought and working out what we're going to say and some bits of it are too detailed."

This SpR felt that some sections were too detailed. Other SpRs also expressed such views; for example:

"I think there is a lot of paperwork involved. And maybe some of it could be shortened and made more efficient, but in principle the idea is quite sound." (SpR no. 4)

".... I think some of it is too big, they seem to be after more than is necessary, for instance in the audit section, it says to summarise all the audit meetings you've been to, which is a massive task seeing as there's an audit every month.....Well it's difficult because all the areas in the portfolio need to be there although I think some of the areas need to be in less detail." (SpR no. 11)

“Some of them are good but each and every bit for the training overseas or in the UK,I think some of it is unnecessary..... ” (SpR no. 20)

It may be inferred that some sections of the portfolio were too detailed and that there is a need to review the portfolio format and size. However, it is also apparent from answers to other questions that this perception regarding size was a little exaggerated, perhaps because of misunderstandings about the way portfolio was to be prepared. These misunderstandings are discussed under the section dealing with the implementation of PBA at the QSA.

Some SpRs also pointed out that, apart from being too big and too detailed, the format was also too specific in certain places. SpR no. 7 suggested typically:

“The boxes are probably too specific as in what skills I gained and I find it's too specific for each 6-month job including house jobs, as I can't remember so that's too specific. The history is too specific too..... ”

This is an important observation, since the purpose of a portfolio is not to record the specific details, and so this also needs to be reviewed in the light of this finding.

A Structure for Recording and Review

The most common and frequent positive comment from the SpRs was that the format provided a structure in which to report their experiences. They also recognized that it would help them to identify gaps in their training and to plan for the future.

SpR no. 6 argued that the portfolio has two functions. First, it clearly depicts what is needed from the SpRs; second, it provides scope for reflection on the extent to which they can achieve their targets:

“It seems that a portfolio is different in a way that its structure or skeleton, where what we need and what we require is more clear than any other system. And we can fix the targets, and at the end of period we can reflect what we have done and what we have missed and then it can give us a guideline for building our aim for the training period. ”

In a similar vein, SpR no. 7 suggested that:

“It's a way of organizing our curricular activities into a manageable, standardized format, which can be easily assessed and how deficiencies in training can be easily identified and hopefully rectified.”

These views can be used as a representative definition of the portfolio in the context of the QSA. Although this is not an ideal definition, the understanding developed by this study shows that, at the QSA, SpRs used the portfolio mainly to reflect on progress in training over a period of time. It was rarely used for the other important purposes of critical reflection on single performances and reflection on the profession as a whole. The structure of the portfolio facilitated its use mainly as a ‘course-related learning portfolio’ and not as a ‘reflective learning portfolio’ (Smith and Tillema, 2001).

Some SpRs (about 60%) appreciated the flexibility provided by the structure. SpR no. 13 stated typically:

“You can, actually, adapt the portfolio to suit yourself, that if there are certain areas you've done more of, you can add bits in and then if you've only done one publication, there is no point in having 3 blank pages so with the computer-based system, you can adapt and alter that, which is good.”

It may be concluded from the above views that the format was generally liked by most of the SpRs since it was quite flexible, as well as providing a structure for planning, recording and reviewing their professional activities. Winsor *et al.* (1999) also support the provision of some structure and argue that a lack of structure in the process of portfolio preparation may lead to a lack of clarity or shifts in intentions and requirements. Borko *et al.* (1997) also suggest that if no format is provided then students may not be able to prepare a portfolio covering all aspects of their training, and if the format is too detailed, rigid and prescriptive, then students do not own it. Based on their experience of portfolio use in teacher education programmes at the University of Rhode Island and Florida State University in the USA, Barton and Collins (1993) argue that the most effective portfolio structure includes a combination of prescribed entries and self-selected entries.

However, SpR no. 16 was not fully satisfied with the structure of the portfolio. He liked the template format of it but thought that he could have designed a better template:

“The technical aspects of it ... I did like the fact that it was in a template format. It is easy to fill in. I can think of a better one. I’m reserving judgment on the format of it but first impressions are alright.”

Such views indicate the desire of some SpRs to design their own format, though they initially liked the present template format.

Separate Portfolio for SHOs

SpR no. 23 argued that the present format required details of training for previous years, namely about pre-registration training as a SHO. According to her, details of SHO-ship are not needed, and the portfolio should be restricted to training as a SpR:

“It seems to look at large portions of my training as a house officer and beyond that. I think it’s a bit unreasonable to look at what parts of your training you got out of being a house officer.... Such as your employment, pre-registration, house jobs and then you’ve got a summary of pre registration training and key responsibilities of these, and then you’ve got the training and post-registration training in non-anaesthetic posts. I mean this is four years ago..... If you’re going to do a portfolio then it needs to have come in when people start working.”

Other SpRs also suggested that they should not be expected to reflect on their past training as SHOs, since now they could not improve what had happened. It may be suggested that SpRs should be asked only to provide the main details of SHO training, in order to give an idea about the background experience of SpRs, but not to go into detail about the training they received as SHOs.

Alternatively, a separate portfolio could be introduced a SHO level, since training for SHOs is work-based, like the training for SpRs and so PBA may also suit their context. Moreover, the portfolio format for SpRs would then be much smaller, since it would relate only to details of higher specialist training.

Evaluation of Minor Activities

SpR no. 24 felt that the evaluation part of the portfolio had not given him much benefit in some sections, such as meetings attended. However, he realised that it was beneficial to evaluate major activities such as research and audit. He stated that:

“The bits I’ve missed out primarily being the sort of evaluation bits and the reason for that is really for me I felt it wasn’t giving me much benefit. And it varies depending upon which aspect you’re looking at. So I think it has some merit, under the audit bit we have to put down why we were doing it and what we got out of it and things like that. But in terms of evaluating a meeting I’ve gone to or a presentation I’ve given then I think most people automatically if they’ve gone and given a presentation they come away and would tend to criticise themselves mentally. But I don’t feel so comfortable with actually sitting down and writing it all out in words. So I think that the sort of evaluation about some things for me aren’t helpful,”

Thus, this SpR opined very candidly that it was worth investing time in formally evaluating major activities such as audit and research by writing about them, but that it was not cost-effective to formally evaluate activities such as meetings attended and presentations made. In a way, he suggested that a purely mental evaluation of relatively minor activities was sufficient. Some of the other SpRs expressed similar views, but not as explicitly. Designers of this portfolio format may argue that if meetings attended and presentations made were not included, it would have been difficult to ensure that reflection on these activities was taking place. However, in the interests of reducing the size of the portfolio to make it more appealing, it might be worth considering eliminating those sections that cover minor activities. This would also make available more time for writing down reflections on major activities.

5.3.4 Implementation of PBA at QSA

The analysis of the experiences of PBA highlights the fact that some of the problems were related neither to the SpRs’ perceptions of the utility of the portfolio nor to its format. These problems were associated with the introduction phase of PBA and might have arisen owing to the particular way of introducing it at the QSA. Smith and Tillema (1998:204) also found that:

“Lack of experience in working with portfolios for trainers and trainees might have caused these initial feelings.” There were also some misconceptions about PBA. These problems and misconceptions are discussed below.

Misconceptions about Preparing Portfolio

A large minority of the SpRs (about 20%) thought that it was compulsory to complete all sections of the portfolio every year. SpR no. 11 felt typically that it was difficult to fill in sections of the portfolio related to all the components of training every year since the RITA offered the choice of acquiring training in different components in different years:

“.....but what I don't like is that it comes with a 5-year curriculum which I don't conform to at all. If people are supposed to be achieving each of those goals in each year, they look a bit unachievable to me; I think they're achievable over 4 years but not in eachthe RITA process accepts the flexibility.”

Another SpR was also confused about this issue:

“.....sometimes I didn't know what to write as lots of pages are so detailed so a lot of pages didn't apply to me. Sometimes I thought 'should I delete it or should I leave it? ’” (SpR no. 21)

Yet some SpRs who had attempted it sincerely quickly recognised that not all parts were applicable to them. The experience of SpR no. 10 is typical:

“Well, when I first received it the size was overwhelmingbut quickly I realized that it's not all mandatory, it's just an outline, a framework to useWell it's about 35 pages or so - my completed portfolio to date, so I guess there were 65 pages which weren't applicable to me...”

It might be inferred from these experiences that by merely scanning the portfolio at a glance some SpRs developed a misconception about its size, which then developed into a psychological barrier against it. However, those SpRs who mustered enough courage to start preparing it soon realised that there was not as much of work involved as they had thought. It may thus be assumed that this misunderstanding was only associated with the introductory phase of PBA. Better awareness about PBA might have avoided such misunderstanding.

Similarly, a minority of SpRs (about 15%) had wrongly assumed that they were supposed to fill in details of every experience they had in their training. According to SpR no. 21:

“In each and every step I'm going through to find out ... what I think is that it is very detailed about every course you attend and everywhere you go and what you've achieved, but it's not always possible to say what you've achieved.”

According to Seldin, (1997), a portfolio is a description of selected experiences and reflection on those experiences. This selection should be made such that both good and bad experiences are reflected upon. However, it seems that some SpRs were not aware of the importance of listing all the experiences and then giving details of certain selected experiences. SpR no. 7 stated typically:

“...and the bit on what you got out of courses, well, I'm not sure that's really necessary as you can only summarise one particular course you've been on. You could have a list of 20 courses and then it's only asking you about 1 particular course, so I can't really see the point in the exercise. The point in the exercise was writing down to remind you what the course was like then you should have space for every single course you've been on to do that. If it's just to test you on what you remember about the course, I can't see the point in doing that on a portfolio.”

It seems that this SpR thought that such description was asked for either in order to find out about the quality of courses or to check on how much the SpRs remembered about them. These SpRs were unable to understand that the purpose of this exercise was to encourage them to be self-directed and critical learners who could plan their learning by making choices in a critical way.

Another common misunderstanding was that PPP would require an enormous amount of time. A sizeable majority of the SpRs (about 70%) had this misconception, which also seems to be based on prejudices concerning the size of the portfolio. However, the SpRs who completed it realised that the first time took only about six hours work. It might be argued that six hours is not a very high investment when set against the expected return in the form of improvements in the training-learning process. Some SpRs described their experience as follows:

“I'd go for approximately 6 hours or something like that. That includes, because I've had to change it and write it for the appraisal with the logbook and then I updated the logbook for my RITA and obviously add extra things I'd done, so you end up changing it every 6 months basically.” (SpR no. 7)

SpR no. 13, who had filled in the major part of the portfolio and maintained the portfolio regularly, realised that it takes time only at the beginning:

“I think it's that initial big workload and there's a lot of background information they want but once you've done that it should become a lot easier and quicker to fill out. I think it's investing time at the beginning only....”

It might be inferred from these experiences that more time is required initially, since the first part involves providing details of qualifications acquired, posts held, and nature of experience gained after entering undergraduate medical education. After this initial effort, only a periodic addition of new experiences is required. Moreover, some SpRs, such as SpR no. 9, felt that if it was maintained regularly it would take less time. He suggested that:

“Well, as I say, it's done prospectively, so it hasn't really taken that much time,.... It's not as if I've sat down for 10 hours and done everything in one go; as I've gone to meetings and things, I've gone back to the portfolio and filled it in, so if you keep it up to date like that it's not too bad. I would imagine if you wanted to fill it all in one time it would take hours.”

It is clear from these views that a perception that the portfolio was too large and would require too much time was the result of certain misunderstandings, and that once the SpRs started completing it, their perceptions changed. However, such confusions should have been avoided at outset by providing better orientation to the trainees, since it had generated an undue anxiety which had consequently undermined the potential of the portfolio.

Problem in Filling in it Retrospectively (problem for senior SpRs)

Senior SpRs who had already completed two or more years of training found it more difficult to fill in retrospectively. For them it had been very difficult to recall past experiences and to comment on those experiences. SpR no. 9 argued typically:

“A lot of it, especially the retrospective stuff like house jobs and SHO jobs and what experience you got from that is: - a) difficult to remember and, b) you doubt whether it is relevant..... I think the problem with both the logbook and the portfolio for the people who are later on in their training is that it's been forced upon them at a late stage, and you think there's an awful lot of information that I could put down which I can't remember.”

It is clear that SpRs in the first year of training would not face such problems. And, with hindsight, it may be suggested that to make PBA an enjoyable exercise, senior SpRs should have been encouraged to prepare sections related to their present activities first, while sections related to past activities could have been made optional.

Priority Given to FRCA Exams and Clinical Experience (Problem for junior SpRs)

Junior SpRs generally appreciated the value of the portfolio, but the real problem from their perspective was that in the first two years of training their priorities were to pass exams (preliminary and final FRCA conducted by the Royal College of Anaesthesia) and to develop clinical skills. The development of non-clinical skills was a very low priority for them. SpR no. 10 argued typically:

“It's a means of reflection but I'm not sure it's been that much help to me at this stage,.... From the non-clinical side my time is orientated towards my exams but I hope once the exam is out of the way, more of my time will be spent towards learning to teach or supervise or research from my point of view or one particular speciality. That's my feeling as at the minute I'm putting that off as I have to pass the exam.”

Similarly, SpR no. 12 felt that progress in training meant passing the Royal College Exams.

He explained his position as follows:

“I mean ideally you'd like to be doing it all the way along (filling in the portfolio regularly) but my personal feeling was that the exam was the first thing to get over. It's critical because you are held in second year until you pass the exam and your training can't progress, your clinical training can't progress until you get the exam so that was my feeling.”

The priority given to mastering clinical skills and passing Royal College exams in the initial years of training is also reported by Paul (1999), and seems to be a genuine problem which needs consideration. Moreover, this problem is not associated only with the introduction phase

of the portfolio, and future cohorts of SpRs may also feel that there is a conflict of interest between the portfolio and the Royal College exams.

This problem also seems to stem from the misperception that all SpRs are supposed to fill in all sections of the portfolio in all the years of their training. However, since SpRs do not engage in many non-clinical activities during the first two years of training, they could only make limited use of the portfolio. There is a need to communicate to new SpRs at the beginning that although it has a big format, only a small part is applicable to them and hence they should not feel threatened by it. However, attitudes towards learning always played a role, as evidenced by the views of at least one junior SpR, for whom exams were only a temporary distraction. He could maintain the portfolio and logbook regularly apart from about two months before exams when he had to stop maintaining these records. SpR no. 18 pointed out that:

“Honestly speaking, I haven’t found the portfolio or logbook a problem because I do it on a regular basis. I do it on a regular basis as much as I can, but when the exams are just round the bend, then it does become a pile-up, as exams are the first priority.”

Nonetheless, Pitts *et al.* (2001) argue that the usefulness of a portfolio in the learning process depends on the stage that the learner has reached; for example, it may be of limited use in the early stages of learning when the learner does not know enough about the subject. Such views indicate the need for different portfolios to have a focus on different components of learning, according to the stage of learner.

Repetition of Information with RITA and Appraisal Forms

Apart from these misunderstandings, there also exists a real problem related to the repetition of certain information in the portfolio which has been already furnished in the RITA or appraisal formats.

SpR no. 2 expressed his doubts in this regard:

“I’m not surewhether the portfolio is going to replace these forms we have to fill in for our annual assessment and also RITA forms. At the moment we have the portfolio, forms for the appraisal and we’ve got the forms for RITA. I mean these forms take a while to fill in.”

SpR no. 7 found that in the RITA his portfolio was not seen, and he related this to the repetition problem:

“.....but ultimately all the information they wanted, they got from forms that were sent out prior to the interview. They weren't really interested in what I had on my portfolio because all the data they wanted I'd filled in on separate sheets anyway.”

This affected the process in two ways. First, trainees had to provide the same information twice and second, the RITA and appraisal panels did not feel it necessary to scan the portfolio even though it provides additional qualitative information. However, it might be necessary to provide some information in all three because their purposes are different: the portfolio is designed mainly for formative self-assessment, while the RITA is for summative assessment and appraisal is a kind of counselling. It seems that a considerable number of SpRs were not able to appreciate the differences in these purposes and this added to their misunderstanding and lack of interest in the assessment process.

It may be appreciated that this was a transition phase, and that appraisal formats and the RITA formats could not be revised until the portfolio was established properly. However, the unnecessary repetition of information is undermining the establishment of the portfolio, creating a catch-22 situation. It is suggested that a bold step to revise the formats in order to eliminate any unnecessary repetition of information in the RITA, appraisal and portfolio should be taken soon. Moreover, if some repetition was inevitable, owing to the different purposes of these three types of assessment, then trainees might be made aware of these purposes.

5.3.5 Existing Assessment System

To understand how PBA fits into the existing system, it is necessary to understand the perception of the SpRs regarding the two components of the existing assessment system. The first of these is appraisal, an informal formative assessment designed to provide guidance and counselling to SpRs and to eliminate any hurdles faced by them in achieving the learning targets. The second is the RITA, which is a formal summative assessment and is used to determine whether or not trainees will progress to the next year of training. Before the introduction of the portfolio, the RITA and appraisal were fed by two sources of information. First was a logbook maintained by each trainee, in which they recorded in brief, details of the clinical experience acquired by them. The second of these were reports submitted by consultants with whom the trainee had the opportunity to work. An analysis of the SpRs' perceptions of the RITA, appraisal, logbook and consultants' reports is presented below:

RITA and appraisal

Most of the trainees (about 90%) generally appreciated the benefits of the existing assessment system comprising the RITA and appraisal. However, some trainees were unable to see the main difference between them: that is, the RITA is basically a summative assessment and appraisal is an informal type of formative assessment. The views of SpR no.22 reflect the general satisfaction of trainees with the existing assessment system:

"I've had two RITAs. I suppose, it's a reasonably good way of assessing actually; I think you get your appraisal and then your appraisal looks at what you've done in the past and also tells you what you need to do in the future and the RITA is a more formal assessment... RITA is a reasonable way of assessing and it also asks for the views of consultants you've worked with"

Similarly, SpR no. 5 felt that appraisal and the RITA were both friendly and served the purpose:

"I find appraisal useful. I don't know if I'm alone but I've had good appraisals and the people that have appraised me have been very good and there have been one or two training

problems which I've had which is one practical problem which I brought up at an appraisal and it was sorted out and we came up with a plan of what to do. It was useful. RITA - people feel slightly threatened by it. Again, I haven't had a problem but I know some people find it slightly threatening."

When asked why some people found the RITA threatening, she replied that it was not the fault of the RITA, but that the people who had not achieved sufficiently felt threatened since the RITA decides whether or not they will progress to the next year of training. This reveals that summative assessment that decides life chances is normally a threatening experience, especially for low achievers.

Thus the trainees generally seemed to be satisfied with the appraisal but they felt that the RITA needed some improvement. SpR no. 20 felt that the RITA was very easy and should be made more rigorous:

".... I can't remember anybody has had much bad experience about those things, so everybody gets through depending on exams and unless someone has done something grossly wrong, in that case, I don't think that it is serving the whole purpose of scrutinising in detail, trainees."

SpR no. 17 also thought that the RITA was very easy:

"I think it should certainly fail some people....I think it should be stricter as people just go through their training ... I mean the RITA should be stricter.everyone assumes that everything is going to be fine and that nobody is going to be asked to change anything or....."

Although some SpRs felt that the RITA was easy and that it should be tougher to pass it, the Director of the QSA argued that making the RITA tough was neither desirable nor possible, since its purpose is only to ensure that minimum standards are maintained. He further explained that it was very difficult in work-based education in the complex profession of medicine to grade performance of the trainees in order to differentiate among them.

However, some SpRs understood that the RITA is a kind of minimum threshold which one must pass in order to progress to the next year, and that its main purpose is to identify those trainees who are not performing well. According to SpR no 13:

“.....I think one of the main purposes about RITA is making sure a certain standard is achievedProbably it's more to do with those few people who are at the bottom of the pile..”

A number of other trainees also felt that it was difficult for the RITA to distinguish between good and better, but that it could identify incompetent SpRs. However, some professionals were not satisfied with just minimum standards of performance and wanted an assessment system that would further improve their performance. In a situation where traditional methods have limitations in assessing incremental improvements in the performance of trainees in complex professions such as medicine, as discussed in previous chapters, self-assessment seems a way forward. And this is the main reason that self-assessment is being seen as complementary to ‘assessment by superiors’ (Boud and Lublin, 1983).

A considerable number of SpRs (about 30%), however, wanted more interactive and intensive appraisal in the form of guidance on a regular basis. The views of SpR no. 15 were typical:

“..... I don't know if the appraisal would be better if it could help you and then continue to support you and tell you who you need to talk to about things, when talking about your potential goals. It all seems a bit woolly at the moment.”

The use of the word ‘woolly’ in the above expression indicates that the trainees were not very clear about the purposes of the assessment. When it was asked whether she wanted guidance such as appraisal on a regular basis, she replied:

“Not more regularly..... Perhaps if at that stage we were directed towards a particular person that would be able to help or this person is into that type of research so that would be a good person for you to talk to, instead of it just being a conversation, actually getting feedback off them..... . That would be more useful.”

Thus, it can be said that some trainees valued formative assessment and feedback but at the same time felt the need for more guidance concerning non-clinical activities they wanted to pursue, and of help in case they got stuck. SpR no. 5 expressed the same view:

“.....It would be helpful to have someone to direct you in your learning. Nobody is there to tell you what to do.”

SpR no. 2 seemed a little frustrated with the non-availability of any guidance:

“..... there’s a danger that we produce all this information and then this information is highlighting an area of weakness or an area that we need to have more experience in, but they’re not picking up on that and saying, ‘well we’ll make sure you do get more experience’, it’s just that nothing changes. It’s almost like we’re creating a lot of information and data, but then not using it to rectify the problem.....”

Thus a large proportion of the trainees felt that in the present system, assessment was not followed up by remedial measures in terms of opportunities and guidance. However, in the eyes of some SpRs, the purpose of guidance was to obtain readymade solutions, and it may be inferred that such trainees were not self-directed learners. However, this need for guidance should not be treated as always indicating that SpRs are not self-directed learners. If the SpRs ask for help and guidance when they are unable to find solutions, even after trying hard, this is different. As discussed elsewhere in this chapter, the majority of the trainees also indicated that they would like regular help in discussing their portfolio with a consultant, for three reasons. First, to improve the quality of reflection; second, so that they had some psychological support, and third, to help them make choices about their clinical or non-clinical activities. In other words, the trainees appeared to want some kind of guided self-assessment. Wenzlaff (1998) also highlights the need to provide guidance in portfolio preparation whenever trainees require it, and argues that if guidance is not provided then the portfolio may simply become an assignment to be completed at the end of term, rather than a tool to assist in learning.

On the basis of the above discussion, it is suggested that, for such guidance, each SpR be attached to a consultant of his/her choice for the whole period of training. However, a cautious and balanced approach is needed to avoid giving too much guidance or spoon-feeding. This balance may be achieved if, apart from the attachment itself, nothing is mandatory about this student-mentor relationship. More importantly, the choice concerning the nature and amount of guidance needed should rest with the SpR. This may work as long as the mentor is not made

responsible for the training of the SpR, and the purpose of this student-mentor relationship is made clear to both parties: that it is principally designed to provide guided self-assessment leading to self-directed learning, and not to supervise and control the whole training.

Logbook

Nearly all the SpRs saw the logbook as consisting simply of a list of clinical experiences. However, the RITA was to a large extent based on the logbook, since it provided information about the number and variety of clinical experiences to which the SpR had been exposed. The following statement by SpR no. 23 represents the views of the majority about the utility of the logbooks:

“Well the logbook is probably invaluable to show what you’ve done in terms of what procedures you’ve done, how much exposure you have to particular types of surgery and particular specialities. I think that’s very useful.”

However, most of the SpRs, such as SpR no. 9, accepted that the logbook was the best possible method for assessment, with the rider that there was a need for some revision of its format:

“....merely completing a logbook record of a procedure doesn’t indicate the ability to perform that procedure, nor does it indicate a person’s ability to do it or the competency which they feel they can do it themselves, but it’s probably the best way we have of recording what we do and the breadth of our experience. Well, obviously a lot of areas are missed out....” (SpR no. 9)

It can be inferred that the logbook recorded only the quantity of different types of clinical experiences, but was not able to record the quality of learning from those experiences and hence could be considered as a necessary but not sufficient tool for assessing clinical experience. In the existing assessment system, therefore, the logbook was supported by consultants’ reports. How the SpRs felt about these reports is discussed below.

Consultants’ Reports

Nearly all the SpRs felt that consultants’ reports were the most important component of the existing assessment system. Although consultants also gave feedback informally during day-

to-day working that was akin to informal formative assessment, their reports were mainly used to support summative assessment (RITA). The views of SpR no. 22 represent the opinion of the majority of SpRs about the importance of consultants' reports in assessing them:

"Yes, If they are filled in truthfully by the consultants then yes, they are an effective way of assessing people. I believe they fill them in sincerely, actually; I've seen two of the reports which have been written about me and my strengths are appropriately recognised and my weaknesses are recognised too...."

Similarly, SpR no. 23 stated that consultants' reports were more important than either the logbook or the portfolio:

"And obviously the consultants are there to train us and to appraise us and to ensure that the standard of anaesthesia is continued in future generations. So I think, their impression, their evaluation, their appraisal of us is actually more useful than things like logbook or portfolio."

These views also reflected the desire of the SpRs to maintain standards and a belief that consultants can ensure this. This belief indicates faith in the concept that a professional community or community of practice must play a major role in developing the profession or maintaining standards (see Murray and Lawrence, 2000; Wenger, 1998).

SpR no. 21 had experienced the old system (he had discontinued his training for about four years for personal reasons) and suggested that the present system of reporting from consultants was now more open. He compared his experience of both systems:

"That's very good as well because each consultant has to have a say in terms of trainees' competency and if there are any problems to be rectified. There's nothing like this compared to the past, as everything used to be very confidential so you never knew. You could drop out of the system without ever knowing what was wrong with you. It's much more open now.."

It may be inferred from the above discussion that trainees generally felt that consultants' reports were important for authentic assessment. Yet they identified some shortcomings. Some SpRs stated that most consultants gave their reports at the end of their hospital attachment, which is normally of about six months' duration. SpR no. 19 argued:

“ they’re useful....., so perhaps the feedback in the middle of your stay, might be more useful, as sometimes getting the feedback at the end, when you’re about to leave, if there has been a problem, it may be too late to address it at that particular place. It might be useful when you’re halfway through, just to get an update of what you think of the place and what the place thinks of you as well. I’m not talking about anything formal, just an informal sit down with either your educational tutor or consultant.”

Other SpRs also expressed similar views. SpR no. 23 suggested that:

“...and if there are problems then it would be better if those problems had been hi-lighted a little earlier and I think they often are actually just informally which gives you the ability to sort them out before they’re get all written down and formalised.”

It seems that the majority wanted timely and more frequent feedback from consultants, so that they could take remedial measures in time. Analysis of the questionnaires also indicated that the majority of the SpRs felt that they did not receive the consultants’ reports in time to take remedial action. However, the aim of having interim reports in the middle of an attachment may be two-fold: first, to receive feedback in order to improve skills, and second, to take remedial action in order to obtain a better final report, since this adds to the RITA process. This is evident from the fact that some SpRs (about 30%) also wanted to have a say in their assessment. SpR no. 20 informed me that consultants do not discuss that their assessment with the trainees and their reports are one-sided:

“They are sufficient, but they may not be very helpful sometimes because the consultants’ records are one-sided as they are not discussed by the consultant with the trainee,..., rather they are seen by the college tutor about the consultant’s feeling about the trainee and then the trainee is not given the opportunity to discuss with the consultant....”

SpR no. 18, who came from the Indian subcontinent, also suggested that consultants’ reports should be discussed with trainees before passing them to the appraisal committee. He pointed out that there could even be misunderstandings resulting from cultural differences, as one consultant mistakenly interpreted his politeness and shyness as a lack of confidence:

“In my appraisal it said things like, “this trainee is efficient in his work but lacks confidence ... it gives a bad picture saying that I’m shy and not confident, but it might be because of my politeness which is because of different cultural background; it might be the way people are

brought up in the place where I come from. I may not be shy; it might be my politeness but it is viewed differently in this country.”

According to SpR no. 16, a portfolio can compensate for these deficiencies in the consultants’ reports:

“I think that (consultant’s report) is an imperfect but perfectly fine means of being assessed. The nice thing about portfolio is that it’s written from the other side; it’s written by ourselves about us, so it might help to address the balance if there is unfairness - I’m not saying there is - but if there were.”

However, SpR no. 20 argued that a portfolio couldn’t compensate for this deficiency since it would not go back to the consultant who had developed the wrong image of that SpR:

“Yes I think it will, but it will not go to the consultant related you know what I mean.... It is unfortunately, very poor feedback from the consultant to the individual trainee, because, if they think anything is bad, they should discuss it with the trainee at the time so it can be improved, but it's not happening in this training as far as I know.”

Comments like the above indicate the strong desire of some SpRs to participate in their own assessment. Another weakness in the present system was pointed out by SpR no. 15, namely that consultants’ reports were very general in nature and did not provide specific feedback.

According to her:

“...having said that they're very general about your work. That may be that they are looking to find the bits you could improve. I think they serve the purpose of how you interact in the department and how you support the department and if that is their aim then yeah.”

This view correlates with the view expressed by most SpRs in the questionnaires: that consultants’ feedback was generally not specific. One reason may be, as suggested by SpR no. 14, that consultants often provide feedback without enough exposure to the trainees’ performance:

“I think in my experience, as you get more highly trained, you have less contact with consultants and you don't spend time with one consultant consistently, so some consultants will fill in the appraisal forms after maybe only being with you once or twice and that isn't an accurate idea of your performance..... I'm not sure how good they will be in assessing the competence of the trainee in that situation. It could depend on personality.”

Such views also support the finding from the analysis of the questionnaire. Consultants' assessments are also affected by personality traits, over and above professional qualities, such as gender, ethnicity, sycophancy and dress sense (see section 5.1, part C).

It may be inferred that the SpRs had some doubts about the veracity of consultants' reports and wanted to have a say in the assessment procedure. This may be considered as a good indicator of the development of autonomy in learning (Boud, 1995) and self-assessment techniques such as the portfolio may satisfy this desire (Redman, 1994). However, there is still a need to make explicit the assessment criteria used by consultants and to ensure transparency and the participation of the SpRs in the assessment process. Wolf (1995) argues that to develop shared understandings of criteria and standards of assessment, regular discussions between assessed and assessor are necessary. Gipps (1994) suggests that such discussions not only help in developing a shared understanding of grading decisions but also socialise students into an assessment community.

5.3.6 PBA and the Existing Assessment System

The above discussions suggest that the trainees generally accepted the existing assessment system, but they pointed out two main shortcomings. First, logbooks did not record quality of performance and second, SpRs were not involved in assessment by consultants. PBA seemed to compensate for these shortcomings by providing opportunities for qualitative self-assessment and hence was generally accepted by the trainees as a suitable addition to the existing assessment system. The perception of the trainees concerning the compatibility of PBA with the existing assessment system and their suggestions in this regard are discussed below.

Portfolio and Logbook

Nearly all the SpRs saw the portfolio as complementary to the logbook. According to them, the logbook only provided for recording experiences related to clinical skills, while the

portfolio also enabled them to record other work experiences. In addition, they pointed out that the logbook was a purely objective record, while the portfolio provided the opportunity for free textual comments about the quality of a performance or learning experience. The views of SpR no. 10 were typical:

“...Well the logbook is purely a record of practical cases and procedures but there is no record of non-clinical educative meetings or attendance- it's purely clinical work. There is also no scope for free text comments of what to achieve - it's purely an objective record.”

In a similar vein, SpR no. 12 opined that:

“.....It gives very little information of what you're capable of doing. You could have been there and not taken any part inI think the logbook has limited value although it is better than nothing.as far as keeping records, there isn't anything other than the portfolio to keep everything together in a presentable wayThe portfolio will give you more of an idea or injunction in with a logbook than the logbook on its own. It's still very difficult to fully assess.”

The logbook and portfolio together were therefore seen as a good combination, because they complement each other. Yet, as SpR no. 12 has suggested above, even the logbook and portfolio together are not sufficient to assess training fully. However, the portfolio also includes a summary of the logbook and hence it was considered more inclusive and comprehensive. In the words of SpR no. 21:

“It gives the aspect of what you have done in training and what you haven't done.... . The logbook is one part of this and it's very comprehensive.”

Blake (2001) also suggests that logbook and portfolio can work together to document professional activities performed by trainees.

Portfolio, Appraisal and RITA

Appraisal is the process of informal interaction between the trainee and a panel of consultants to review the progress made by the trainee, to identify problem areas, if any, and to plan future

courses of action (Coles, 1998; Riley 1998). The portfolio was intended to be helpful in the process of appraisal because it made provision for criticising the strengths and weaknesses of the training by the SpRs themselves. This criticism could then be used to generate discussions among panel members or between trainers and trainee for planning remedial actions (Snadden and Thomas, 1998). However, some of the SpRs saw the portfolio merely as a tool for keeping a record of their work in the different components of training: for instance, SpR no. 9, who was not aware that a portfolio can be useful in the appraisal process, expressed:

“Other than a record of meetings attended and exams passed, I'm not entirely sure how it is going to work in appraisal because it's down in black and white. And as far as appraisals go, I thought they were more of a subjective analysis of how you perceived the hospital and I don't think there is room in the portfolio for doing that.”

However, even when some of the SpRs were aware of the true potential of the portfolio for use in the appraisal process, they were suspicious that an appraisal panel would see only the lists of accomplishments and not their self-assessment owing to a lack of time. The views of SpR no. 10 were typical:

“They will use the portfolio as a simpler way of checking the list of accomplishments against desired achievements. I'm not going to be appraised on it as they won't see the comments I've made about my performance.”

Such views indicate that some trainees doubted whether their comments in the portfolio would be utilised during appraisal. It can also be inferred that some trainees wanted to be appraised also on the self-assessment carried out in the portfolio, but doubted that the panel would appraise it; this may demotivate them from doing self-assessment. And this perception on the part of the trainees was not unfounded. Appraisal panels had not even seen the portfolio in most cases. In some cases they have seen the portfolio but just scanned through it:

“It wasn't used but I had it already. (Did the panel know you'd brought your portfolio?) They didn't know and they didn't care. They presumed that I had it but they didn't ask for it.”
(SpR no. 21)

Moreover, if a SpR had appeared at the appraisal with the completed portfolio, then it was considered a novelty and a positive thing in favour of the SpR but the panel members had not bothered to examine what was inside it.

“It was seen as a novelty as a few people hadn't brought the portfolios, so just sticking it on the desk certainly in the appraisal last year was a novelty.They've only seen the front cover.” (SpR. no. 7)

However, the trainees appreciated that there were two reasons for the low importance accorded to their portfolios in the appraisal. First, there was considerable duplication between the forms used for appraisal and the portfolio; this issue is discussed earlier in this chapter. Second, the appraisal panel did not have enough time to look at each portfolio in detail. Yet the possibility that panel members were not interested enough to examine the portfolios in detail cannot be ruled out. Other studies (Newman & Smolen, 1993 and Johns & Van Leirburg, 1993) also suggest that teachers' involvement and enthusiasm are critical to the success of all forms of performance assessment. Furthermore, this enthusiasm and attitudes towards portfolio are improved by training teachers/trainers in the concept of the portfolio and in ways of using it to support learning and assessment.

As far as the RITA is concerned, nearly all trainees felt that the portfolio was going to be a big help to them. They suggested that, since a logbook is used in the RITA to show their record of experience in clinical activities, the portfolio could also be used as a record of their experience in non-clinical activities. The views of SpR no. 4 are typical:

“It is only the issue of you turning up in your appraisal or RITA well prepared And the portfolio will reveal in an appropriate way to senior people what you have done. And when you come to your appraisal or RITA you will not be faced with the panel saying that well you have missed that big part of training, since whatever you have done is kept in the portfolio.”

It can be inferred from the views of the SpRs that generally they saw the portfolio as an instrument to be used to prove their achievement for certification purposes in the RITA. The majority of them desired more objectivity in the RITA and hoped that the portfolio would help

in achieving this purpose. This need for more objectivity is rooted in the SpRs' desire for comparisons with each other. This is the antithesis of the initial purpose of PBA at the QSA, since it was introduced in the belief that it would promote formative assessment and would reduce the effects of summative assessment as an external motivator in learning (Wills, 1996).

The views of SpR no. 9 demonstrate the irony of this situation:

".....so from a RITA point of view, along with the logbook, I imagine it would be quite good. In that situation as far as I am aware, all they're interested in is what you've done, whether you've done well and whether you've had any major cock-ups. In that way I think the portfolio and logbook will do well in the RITA but the appraisal, I don't think it will carry as much weight."

Need for Comprehensive Assessment

Some SpRs felt that there was a need for a variety of methods of assessing the trainees so that their overall personalities could be assessed. SpR no. 13 talked about a form of triangulation in assessment:

"But I do think you need a combination of things to assess people; it can't just be logbooks or consultant assessments. I think probably where we are heading with a combination of lots of things, you know work that we do off our own bat like research and audit, how the consultants perceive us, how our colleagues perceive us - they're all important."

It may be inferred from this that she was suggesting that the logbook, portfolio and reports of consultants together could provide a total profile of the SpR. In a similar vein, SpR no. 20 expressed the idea that a portfolio is a comprehensive document and it allows space to document every aspect of the professional lives of the SpRs:

"Yes, it involves almost every aspect of the individuals like general information including the training they received in different grades and different places, different hospitals in different faculties. Plus it can help you tell how broad is the individual involved in different aspects of knowledge, as well as social things, like membership of different societies etc., and the different courses and meetings attended."

Such views show that the SpRs recognised the portfolio as a tool which is able to fill the gap in the existing assessment system and make it more comprehensive. However, its effectiveness in this regard is still to be verified.

5.3.7 Summary of Findings

SpRs' Perceptions of the PBA

The majority generally appreciated the portfolio as a tool for assessing their non-clinical skills but they saw its utility as being mainly in summative rather than formative assessment. However, they also felt that it helped them in planning and monitoring their training on a regular basis, that its format focused their attention on targets, and provided a map of growth and, that it could work as a dynamic CV. It can therefore be inferred that though they wanted to use it for summative assessment, they also subconsciously used it for formative assessment. This type of formative assessment might be more effective for learning since it was informal and carried out by self. However, it was restricted mainly to the meso level, since most of the SpRs had used it mainly for reviewing their overall performance over a period of time and only a very small number had reported using the portfolio to reflect on isolated performances (micro level). Similarly, the SpRs did not use the portfolio to reflect on their role in the development of the profession (macro level). More efforts are therefore needed to ensure that the portfolio encompasses formative assessment at micro and macro levels. Ecclestone (2002:148-49) suggests that diverse factors, such as ideological, epistemological, political, institutional and individual factors, have a combined effect on the motivation and autonomy of teachers and students at all levels: macro, meso and micro. She further reports in her study of 16-19 year-old students that after two years of effort, the students' images of autonomy and motivation were still underpinned by images of assessment based on previous experience. Thus, to transform learners into autonomous and reflecting ones would require gradual efforts at all levels over a long period of time.

Neither trainees nor panel members were clear about the utility of the portfolio in the RITA and appraisal; and its use for summative purposes in the RITA created further confusion, for instance regarding its suitability for assessing and certifying achievement properly and for comparing trainees at a national level. Some trainees felt that the portfolio would not be effective as a tool for assessing clinical competencies; such feelings had their roots in the trainees' past experiences of assessment, mainly norm-referenced assessment. Using the portfolio simultaneously for formative and summative assessment purposes might limit its potential for engendering self-assessment. Synder *et al.* (1998) also found that efforts to combine these two purpose results in tension. A considerable majority of trainees considered it as additional paperwork; reasons for this feeling were related mainly to the size and structure of the portfolio and the repetition of some information between the portfolio, RITA and appraisal formats.

SpRs' Attitudes towards Formative Assessment and Learning

- (a) Awareness: It seems that the different purposes of assessment were generally unclear to the trainees, and they were unable to relate the purposes of assessment with which they were familiar to the PBA; this created a conflict.
- (b) Need for Guidance: About 80% of the SpRs felt the need for some kind of guidance. Some of them requested prepared portfolios as examples, while others desired guidance by consultants at the preparation stage. Such demands may be rooted in their images of learning formed over the years based on didactic learning experiences. Most wanted guidance and monitoring to maintain the portfolio and demonstrated an attitude of dependence. Some SpRs were self-directed to such a small extent that they did not even want to plan their learning for the following year. Some SpRs demonstrated an attitude of compliance, as they wanted consultants to monitor whether they were regularly maintaining their portfolios. Some SpRs felt that it would be more effective if portfolio preparation was not compulsory, but this was the exception rather than the rule.

- (c) External motivation: Around 80% of the SpRs prepared their portfolios for the RITA and appraisal and not for learning and self-assessment. Some senior SpRs accepted developing a portfolio as a necessary activity since they realised that even after becoming consultants, they would be expected to do it. This shows that SpRs were mainly externally motivated.
- (d) Fears: Roughly 30% of the SpRs had personal fears about assessing themselves openly, while around 40% were suspicious that revealing too much critical information about the system or themselves might be used wrongly by others. The SpRs understood the importance of recording critical incidents, reflecting on them and sharing those reflections, but most had not done so for two main reasons. First, would continually postpone writing owing to a lack of time until they forgot the details. Second, they thought that writing about and sharing accounts of critical incidents might result in some controversy. In some respects, such apprehensions were rooted in the prevailing socio-political climate of the medical profession.
- (e) Insulting: One SpR was very vocal in opposition to the portfolio and felt that it was insulting to teach reflection to professionals. She was exceptional in her reaction. However, a considerable number of SpRs (about 25%) felt the same, although less intensely.
- (f) Difficulty in preparing: Nearly all the SpRs faced difficulties in writing down their experiences about issues such as time management, communication problems and working in a team. The reasons cited for this difficulty were mainly the lack of a complete comprehension of the problems related to an issue and an inability to describe the whole context with reference to the issue discussed. These SpRs were also suspicious that other persons reading it might misinterpret their views.
- (g) Interpersonal Skills: Some SpRs felt that they were already good in interpersonal skills such as communication, teamwork and time management and hence did not need to reflect on them in order to improve.

- (h) Reflection: Most SpRs assumed that they already reflected enough subconsciously, and that there was no need for more reflection. Some thought that reflection was needed only in cases of failure and, in cases of success, there was no need for reflection. Some believed that reflection is a fixed psychological trait and that a portfolio could not improve it. Such beliefs may be based on traditional images of learning which were based on trait theories, as propagated by Skinner(1953), rather than on the cognitive theories propagated by Dewey (1933) and Kelly (1963). However, after preparing the portfolio, about 30% of the SpRs felt that the process of writing down experiences improves the quality of reflection. However, this reflection was mainly restricted to reflection on the training as a whole, and not on details of isolated performances.
- (i) Self-Assessment: A large minority (40%) appreciated the fact that the portfolio provided an opportunity to participate in the assessment process. Most SpRs (60%) accepted its role in promoting self-assessment but doubted its effectiveness, and felt that they already engaged in it subconsciously and hence the portfolio was superfluous. Yet after preparing their portfolios they realised that process of preparation of portfolios did improve the quality of self-assessment. Many SpRs experienced psychological difficulties in carrying out self-assessment in a formal way, as they had never done it before. Some SpRs doubted whether they would be able to identify a mistake they had made themselves. The reason cited was that if they had known the right thing to do, they would not have made a mistake in the first place.
- (j) Non-clinical skills: A minority (20%) had a firm belief that non-clinical skills were not important for being an anaesthetist and that being a good consultant was different from being a good anaesthetist. Reasons for such beliefs were rooted in their concepts of professionalism, explored in the second interviews with the SpRs.

Format of the Portfolio

The SpRs generally liked the portfolio format since it provided a structure for recording most of the training activities and helped in reviewing their progress over a period of time, but they also found it too big and, in certain places, too detailed and too specific. They felt that sections which related to earlier periods in their medical careers could be shortened. It was also not considered useful or effective to engage in detailed written reflection on minor activities such as meetings attended.

Implementation at QSA

Many of the problems associated with implementing PBA at the QSA arose because the SpRs had some misunderstandings about it. The principal misunderstandings were as follows:

- (a) Every SpR was supposed to fill in all sections of the portfolio.
- (b) It was necessary to describe each experience.
- (c) Preparation of the portfolio was going to take an enormous amount of time.

Senior SpRs felt it was difficult retrospectively to complete certain sections of the portfolio, while junior SpRs in their first and second years of training were more concerned with the passing the Royal College exams and learning clinical skills and therefore gave low priority to non-clinical activities and the portfolio. This raises questions about the timing and progression in different portfolio-based activities in the course of a professional career.

SpRs' Perceptions of the Existing Assessment System

The SpRs in generally felt that appraisal and the RITA served their purposes satisfactorily. But they felt that follow-up of appraisal and the RITA was not up to the desired level and no consultant was identified who could be approached for guidance, especially about non-clinical activities. Logbooks were considered suitable for recording clinical experience but recorded only the amount and type of clinical work and not the quality achieved, and also ignored non-clinical activities. Consultants' reports were considered most important and generally served their purpose satisfactorily in reporting the SpRs' overall clinical performance. However,

consultants did not discuss these reports with the SpRs and usually submitted them at the end of an attachment. A considerable number of SpRs felt that these reports were unable to provide proper feedback and were too general in nature, since some consultants did not have enough exposure to their work but still submitted their reports. The SpRs desired to participate in the assessment process and felt a need for a more comprehensive assessment system. This desire indicated the presence of a favourable environment at the QSA for the introduction of portfolio, which is a more comprehensive tool that also facilitates self-assessment.

Compatibility of PBA with Existing Assessment System

The logbook and portfolio were seen as complementary. The portfolio was not considered suitable for appraisal, which was a formative assessment process, but more suitable for the RITA. This contradicts the aims of the portfolio. The SpRs wanted appraisal and RITA panels to look at the portfolios properly but the panels did not accord them enough importance. However, according to the SpRs, the portfolio compensated for shortcomings in the existing assessment system and thus in general fitted in well with it and made it more comprehensive.

5.4 Reluctantly completed portfolios

The purpose of a content analysis of the portfolios was twofold. First, the aim was to determine the extent to which the SpRs had completed their portfolios; this involved counting the various sections of the portfolios completed by them. The second purpose was to understand the type and amount of reflection in which the trainees had engaged. Engel (1994) argues that studying the portfolios of students reveals their learning characteristics and their habits of mind. Therefore the trainees were asked to submit their portfolios for content analysis. 24 portfolios were received and the content of all of these was analysed. This analysis provided the following information:

Table 5.4.1

The extent to which SpRs completed different sections of the portfolio format

Sl. No.	Information asked for in the portfolio	No. of SpRs out of 24 who furnished this information	% of respondents who furnished this information
1	Personal Details	24	100%
2	Membership of Societies	24 (average no. of memberships per SpR is nearly 4)	100%
3	Membership of Societies	24 (average no. of memberships is nearly 3.5)	100%
4	Employment Details Summary of Training Posts UK Pre-registration Training (House officer's Post) Key responsibilities of the post Skills and knowledge gained UK Post-registration Training (Non-anaesthetic) Key responsibilities of the post Skills and knowledge gained Overseas Post-registration (Non-anaesthetic) Key responsibilities of the post Skills and knowledge gained	 22 18 16 12 18 15 12 10 10 8	 92% 75% 66.7% 50% 75% 67.5% 50% 41.7% 41.7% 33.3%

Sl. No.	Information asked for in the portfolio	No. of SpRs out of 24 who furnished this information	% of respondents who furnished this information
5	UK Anaesthetic Training Year1 Year2 Year3 Year4 Year5 Year6 Special skills and knowledge gained Anaesthetic Experience Overseas Fellowship or research post in Anaesthesia	21 19 17 15 5 1 14 4 3	87.5% 79.2% 70.8% 62.5% 20.8% 4.2% 58.3% 16.7% 12.5%
6	Non-medical experience Voluntary work undertaken in medical capacity	2 3	8.3% 12.5%
7	Anaesthetic Fellowship Examination Record Primary Fellowship of the Royal College of Anaesthesia Final Fellowship of the Royal College of Anaesthesia	13 16 17	54.2% 66.7% 70.8%
8	Courses and Educational Meetings: Summary of courses and educational meetings attended Course or meeting evaluation Summary of Journal club attended Summary of Personal Contribution Presentations, Lectures and Tutorials Evaluation of Personal Contribution: Presentations What went well? What went less well? Did your presentation meet its stated objectives? Did you ask for feedback? Evaluation of Personal Contribution: Lectures What went well? What went less well? Did your presentation meet its stated objectives? Did you ask for feedback? Evaluation of Personal Contribution: Tutorials or Other What went well? What went less well? Did your presentation meet its stated objectives? Did you ask for feedback?	19 14 10 17 12 11 10 9 9 7 6 6 7 7 7 5 5 7 6	79.2% 58.3% 41.7% 70.8% 50% 45.8% 41.7% 37.5% 37.5% 29.2% 25% 25% 29.2% 29.2% 29.2% 20.8% 20.8% 29.2% 25%
9	Medical Audit Summary of audit meetings attended Evaluation of audit meetings attended Evaluation of audit projects undertaken How has the audit changed your practice? Presentation of medical audit projects undertaken	9 4 14 9 12	37.5% 16.2% 58.3% 37.5% 50%
10	Research and Development Details of the research product undertaken How are you involved in this project? What was your involvement in writing the proposal for funding? What was your involvement in obtaining ethical approval? Evaluate the importance of your results Account of research ideas currently being developed What is the importance of this research?	8 7 6 5 4 4 4	33.3% 29.2% 25% 20.8% 16.7% 16.7% 16.7%

Sl. No.	Information asked for in the portfolio	No. of SpRs out of 24 who furnished this information	% of respondents who furnished this information
11	Research Training Summary of meetings and courses attended relating to research training What was good about this course? What was bad about this course? Did the course meet its stated objectives? Were your objectives met? Did you speak or ask questions?	8 6 5 5 6 4	33.3% 25% 20.8% 20.8% 25% 16.7%
12	Publications: Summary of publications Writings prepared but not published? What is good about this article? What is less good about this article? What did you learn from writing this article? Ideas for publication under development Evaluation of recent articles of particular interest. Why I feel this article is important	5 4 1 1 1 2 4 3	20.8% 16.7% 4.2% 4.2% 4.2% 8.3% 16.7% 12.5%
13	Teaching activities Summary of teaching activities Evaluation of personal teaching sessions How did you prepare for teaching? Describe the teaching presentation or lecture What feedback did you get?	11 7 7 7 7	45.8% 29.2% 29.2% 29.2% 29.2%
14	Teaching Training Courses or meetings attended about teaching What was good about this course? What was bad about this course? Did the course meet its stated objectives? Were your objectives met? Did you speak or ask questions?	5 3 3 3 2 2	20.8% 12.5% 12.5% 12.5% 8.3% 8.3%
15	Management Summary of management training Evaluation of management responsibilities undertaken How did you prepare for this task? How did it go? What feedback did you get?	4 7 6 6 5	16.7% 29.2% 25% 25% 20.8%
16	Management Training Evaluation of training and courses attended about management What was good about this course? What was bad about this course? Were your objectives met? Did you speak or ask questions?	4 2 2 2 2	16.7% 8.3% 8.3% 8.3% 8.3%
17	Personal Contribution to Management Training Summary of personal contribution to management courses Evaluation of personal contribution to management courses and meetings What went well? What went less well? Did your presentation meet your stated objectives? Did you ask for written feedback?	0 1 0 0 0 0	0 4.2% 0% 0% 0% 0%

Sl. No.	Information asked for in the portfolio	No. of SpRs out of 24 who furnished this information	% of respondents who furnished this information
22	Critical Incidents: Description of critical incident What could have prevented this mishap? How has this experience affected your practice?	4 3 3	16.7% 12.5% 12.5%
23	Interesting Case: Details of any interesting case	0	0%
24	Topic Review: Details of the clinical topic reviewed with an explanation as to why this topic was chosen.	0	0%
25	Personal development plan: Describe: <ul style="list-style-type: none"> (i) Progress for this year of training (ii) Objectives of the training identified last year and what has been done to meet them. (iii) Professional goals for this year and plan for achieving them. 	7 7 7	29.2% 29.2% 29.2%

The above table clearly shows that 75% of SpRs used the portfolio mainly to showcase their achievements. The following Table shows the list of sections which attracted more than 66.7 % (two thirds, or 16 out of 24) responses:

Table 5.4.2

Sl. No.	Sections of the portfolio which attracted more than 66.7% (two thirds or 16 out of 24) responses	Responses as percentage
1	Personal Details	100%
2	Membership of Societies	100%
3	Membership of Societies	100%
4	Summary of Training Posts	91.7%
5	UK Pre registration Training (House officer’s Post) Key responsibilities of the post Skills and knowledge gained	75% 75% 66.7%
6	UK Anaesthetic Training	87.5%
7	Primary Fellowship of the Royal College of Anaesthesia	66.7%
8	Final Fellowship of the Royal College of Anaesthesia	70.8%
9	Summary of courses and educational meetings attended	79.2%
10	Summary of Personal Contribution Presentations, Lectures and Tutorials	70.8%

However, responses, which required evaluating the performance of either themselves or others, were much fewer. 50 % of the SpRs evaluated their performance in presentations, lectures and tutorials and 58.2% evaluated the audit projects they had undertaken, while there were fewer responses (37.5%) to questions such as “How has the audit changed your practice”. Similarly, the response rates to questions such as: “What went well? What went less well? What was good about this course? What was bad about this course?” were in the range of 25% to 40%. Response rates for questions involving the evaluation of performance were comparatively less than for those questions related to achievement. Moreover, the response rate to questions which required reflection to answer them was lower still. It can therefore be inferred that the trainees were reluctant to evaluate their own performances or were wary of self-assessment. It is a matter for concern that only one SpR replied to the questions put forward in the sections related to teamwork, communication and time management. This is important from the point of view that one of the purposes of a portfolio is to develop an attitude of reflection on interpersonal skills and other generic skills, such as time management. The reasons for the low response rate to these parts of the portfolio might be either reluctance to reflect or an inability to put down their thoughts in words, or both. By not completing the sections related to interpersonal issues they missed the opportunity to understand their behaviour. Smith and Tillema (2001) found that the process of preparing a portfolio forces professionals to engage in systematic reflection, which in turn makes them, think about their behaviour with colleagues and subordinates. In their study, one professional narrated his experience as follows:

“ The need to reflect forced me to think of people around me and what I do to them, and not only to occupy myself with my own success and failure in relation to myself and my personal goals. ” (Smith and Tillema, 2001:196)

More surprisingly, there is very little evidence of reflection on technical skills, as only 16.7% of the SpRs (4 out of 16) filled in the section on critical incident. Yet, it cannot be firmly

concluded that trainees were reluctant to self-assess, since most of them had completed their portfolios retrospectively. It might be expected that in future, when trainees prepare their portfolios immediately after having experiences, they would respond to most of the questions in more detail.

One of the indicators of self-directed learning is the ability to plan for one's own professional development (Charlton, 2001). Yet only 29.2% (7 out of 24) of the SpRs prepared a personal development plan. Such findings raised concerns about the attitudes towards self-directed learning and the extent of professionalism among the SpRs. In the focused interviews conducted after the content analysis, questions were asked that explored the SpRs' attitudes towards professionalism, including their attitudes towards self-directed learning. However, the main purpose of the focused interviews was to explore the reasons for the low of response rate to questions related to quality of performance.

5.4.1 Amount and Type of Reflection in Portfolios

It is clear from the above discussions that very little scope was left for reflection in the portfolios, as a considerable majority of the SpRs did not reply to the most of the questions. But the above discussion gives only a quantitative description, and so in order to understand the amount and type of reflection contained in the responses, I read all their responses. This word by word reading of all available portfolios revealed that most of the trainees reflected minimally and that the nature of the reflection was limited in most cases to the progress of learning and achievement. A summary of all 24 portfolios, along with comments on the nature and amount of reflection in each one, is given in Appendix no. xi. However, some SpRs also reflected on the quality of their own performances and training activities organised by the QSA. In order to show different examples of reflection, excerpts from Appendix no. xi are compiled as Appendix no. xi (a).

Al-Shehri (1995) classified the ‘personal professional journals’ prepared by general practitioners (GPs) into three categories: ‘descriptive’, ‘analytical’ and ‘evaluative’. If this classification is adopted, then most of the portfolios prepared by the SpRs may be categorised as ‘descriptive’.

5.4.2 Findings from the Content Analysis of Portfolios

It can be inferred from the above analysis that

- (i) Around 75% of the SpRs restricted their responses to the questions related to their achievement, while other questions related to the evaluation of their own performances and training activities organised by the QSA were responded to by only about 25% to 50% of the SpRs.
- (ii) The response rate to questions which involved reflection on their own performances, such as ‘What went less well?’ or ‘What could have been done better’ was even lower.
- (iii) Only one out of 24 SpRs completed the sections related to interpersonal skills such as ‘communication’ ‘teamwork and leadership’ and ‘time management’. One of the main purposes behind the introduction of the portfolio was to have some mechanism to support the self-assessment of interpersonal skills. Such a negligible response is thus rather a setback. However, it cannot be stated conclusively that portfolios do not promote the self-assessment of interpersonal skills, since there may be other reasons for such a low response rate, and these were explored in the focused interviews conducted after the content analysis.
- (iv) Very little scope remained in the portfolios for reflection, since the majority of the trainees did not reply to most of the questions, and especially not to the questions asked with the aim of engendering the reflection in the trainees.

- (v) Wherever trainees have reflected in the portfolio, they have done so minimally, and the nature of the reflection in most instances has been limited to progress in training and amount and type of acquired technical skills.
- (vi) A very small proportion (about 25%) of the trainees reflected on their practice and the values associated with it. Even then, reflection of this type occurred only very occasionally in their portfolios and that too was not in depth.

5.5 Attitude of Self-Directed Learning: necessary condition for PBA or an effect of PBA?

The SpRs were interviewed for a second time after the analysis of their portfolios. These interviews focused on the way in which they had each prepared their portfolio. As discussed in the previous chapter, most SpRs had merely furnished the details of their clinical and non-clinical work and had reflected minimally on the quality of performance. A considerable majority had left the sections related to time management, communication skills and teamwork completely blank. This indicates that at the QSA most SpRs were neither preparing their portfolios fully nor truly using them for the purpose for which they had been introduced. The interviews revealed some of the reasons for this: some are related to the compatibility of PBA with the present assessment system and the way it was introduced and supported by the QSA, while others are related to the mindset and attitudes of the SpRs. These are discussed in this chapter.

One of the consequences of little reflection on experiences is the poor quality of the learning derived from these experiences (Kolb, 1984). Therefore, the trainees' views on learning from experience as compared to learning from books were also solicited; these views are used to help us comprehend the disposition of the SpRs towards the portfolio.

Analysis of data from the first interviews also indicated that the SpRs valued non-clinical activities much less than clinical activities. In the second interviews, some questions were asked about their concepts of professionalism. Most SpRs had a very narrow vision of professionalism and this affected their attitudes towards different components of training and self-development. This vision and its effects are also discussed in this chapter. PBA was introduced on the assumption that it might develop the attitude required for self-directed learning (Olson, 1991). But content analysis of the portfolios revealed that it is very difficult for trainees to derive any benefits from PBA unless they have at least the basis of the attitude required for self-directed learning, because this is necessary in order to

prepare the portfolio in the right way. Cobb (1994, cited by Smith and Tillema, 2001) reported the same finding and argued that the extent of use of a portfolio depends to a large extent on someone's ability and willingness to take responsibility for their own learning. Whether self-directed learning is fostered by a portfolio or is a necessary precondition for the effective use of a portfolio, is a key question for academics in the field of assessment and professional learning. In his doctoral research, Yueh (1997) found a significant relationship between the quality of portfolios and the extent to which the students were self-regulated. However, the research conducted at the QSA suggests that correct attitude towards self-directed learning and effective use of a portfolio have a symbiotic relationship. The following themes emerged from the analysis of focused interviews:

5.5.1 Use of Portfolio

The way SpRs used the portfolio may be explained by grouping their views in following categories:

Dominance of External Motivation

Most SpRs considered a portfolio useful from the point of view of preparation for job interviews. SpR no. 21 gave a typical response:

“Well, it gives quite a full record of most of the elements of training and it concentrated more on the non-clinical aspects which is probably what is most useful for consultant interviews. That's what they're interested in. They're not really interested in your clinical. That's taken for granted.....”

Yet, these words have a hidden positive message, namely that this SpR felt that becoming a consultant requires involvement in non-clinical activities as an additional qualification and that a portfolio helped to record those activities. It may be inferred that a portfolio motivates (albeit externally) SpRs to engage in non-clinical activities and in this way helps to widen the curriculum.

Some SpRs were interested only in demonstrating their achievement, and SpR no. 13 suggested that there was no point in filling in sections about activities like teamwork,

communication skills and time management, since these sections did not show any achievement:

“Yes, I haven’t done those. I’ve actually sort of concentrated more on the substantial things that you can see evidence of, publications or audit projects, and in some respects it takes time to take them down and sort them out.....I think partly it’s difficult to put it in writing and I think the other side of it is given say 2 hours to input certain data, I’d prefer to put in that, you know, I’ve written a paper.. or I’ve updated or done an audit project that maybe can be seen as an evidence that you’ve sort of done those bits that you need to do.”

These views indicate the dominance of summative assessment as a priority, rather than assessment for learning. Similarly, SpR no. 26 could not see that his portfolio would be of any use until it was made an official document:

“As I think only if it’s going to be used in an official document would there be any point filling it in whatsoever.”

Some SpRs (about 20%) saw the utility of learning to maintain a portfolio in the future and thought that they would be required to maintain a portfolio or some kind of record of achievement even after becoming a consultant; such SpRs took portfolio preparation more seriously. For example, SpR no. 13, whose portfolio was the most comprehensive portfolio

I examined for this study, felt:

“Probably it’s actually going to be a basis probably for the rest of my career.but also it may be not quite as dialectic as the portfolio is but the whole concept of appraisal and showing evidence of your continuing education is coming into consultant grades as well. So I actually think I’ll just keep building on the current system, you know, when I’m a consultant, and you know, for years to come.”

Thus a majority of the SpRs engaged in the preparation of their portfolios as a result of external motivation, rather than to improve their learning. A considerable number of SpRs (about 40%) prepared their portfolios only when it was necessary for external reasons. This view of SpR no. 11 is typical:

“Well, it gives quite a full record of most of the elements of training and it concentrated more on the non-clinical aspects which is probably what is most useful for consultant interviews.But nobody wanted to look at it for the last 18 months or so I’ve never bothered to fill it in.”

Thus even after the almost two years since portfolios were introduced, some trainees saw them merely as a tool for showcasing their achievements in order to get jobs and did not fill

them in regularly since no one was monitoring them. Ryan (1997) also reported that external motivation which documented increased professional competence was the major driving force for preparing a portfolio. Yet he also found that such documentation of increased professional competence enhanced self-esteem, which in turn may foster internal motivation. At the QSA around 50% of the SpRs said that the portfolio gave them a sense of achievement and that at the same time it indicated what else needed to be achieved, thereby suggesting that the process of preparing the portfolio also motivated the trainees. For example, when SpR no. 18 was asked about the role of the portfolio in self-assessment, his reply was related to achievement:

“So, self-assessment wise it’s good, it gives me a sense of achievement, whenever I do something and I am able to enter it off into the portfolio..... As day by day when I keep working on my clinical scenario I don’t realise what I’m achieving but it’s good, when I enter it into my portfolio, it gives me a feeling of achievement... And of course there are those empty pages that show me also what needs to be done.”

Thus, for some SpRs, it helped develop their confidence by giving them a sense of achievement, and it motivated them in two ways: first, by indicating that they could achieve so much and second, by indicating what else needed to be achieved. Thus, external motivation might be the main reason for the SpRs to prepare their portfolios, but after preparing them they found that the process of preparation itself motivated them to achieve more in their training. Davis *et al.* (2001) also found in their study on the ‘use of portfolios by undergraduate medical students that the process of preparation gives a sense of achievement. Similarly, Blake *et al.* (1995) suggested that sustained preparation was motivating since it helped professionals to feel challenged and fostered professional growth by enhancing self-esteem. These views may be confirmed at the QSA in the future by conducting a longitudinal study.

Relevance

A considerable number of the SpRs (about 20%) felt that they already reflected on their performance and planned their training in a systematic way, and so a portfolio was not a

particularly useful tool for them. However, they suggested that it might be more useful for other SpRs. SpR no. 28 typically pointed out that:

“And again certainly I do and I suspect a lot of people already do reflection and planning, you know you tend to be aware of areas of your weaknesses and things..... So in terms of careers advice and getting direction personally I’ve sort of done that and got a reasonably clear idea of where I’m going and I’m not sure in terms of that aspect of how much a portfolio necessarily adds. ...So it depends on the person. I suspect that the portfolios might be more useful to some people than others. If, for example, people are sort of potentially drifting through their training, it might, it does make some difference to them.”

Similarly, SpR no. 30 suggested that he was in the habit to carrying out self-assessment properly anyway, and so a portfolio might be more beneficial for others.

“...from a personal self-assessment point of view it is probably not useful to me. ...I tend to be fairly introspective anyway and ...I’ve probably got a good idea of, what I’ve done, what I haven’t done, and what my weaknesses are. And I’m not sure doing the portfolio necessarily enhances that. I don’t know if some people, potentially find that useful”

Such views may exist because trainees have an ‘espoused theory’ that they systematically reflect, which may be different from their ‘theory-in-use’ (Argyris and Schon, 1974).

Lack of Time and Low Priority for Portfolio

Most of the SpRs (about 80%) pointed out that they were aware of the importance of maintaining their portfolios on a regular basis, but just could not find time for it or did not feel enthusiastic about it. According to SpR no. 18:

“I must confess it is very difficult to maintain the portfolio, to take time out on a regular basis to keeping filling it in. And if one doesn’t fill it in on a regular basis it’s very easy to forget those tiny details and it is difficult to maintain but it is useful.”

Yet a considerable number (about 20 %) maintained their portfolios regularly. The views of SpR no. 21 are typical:

“I usually, what I do, is just add up something some courses that I have been on just to put everything right. From that point of view it doesn’t take long. Maybe half an hour or an hour every quarter of year.”

However, a number of other SpRs (about 20%) updated the portfolio whenever they felt it necessary. These SpRs did not have any fixed time interval for updating the portfolio, but added to it whenever they encountered something special or when one attachment was

completed or when some major project had finished. The comment by SpR no. 27 describes the style typically adopted by these SpRs for maintaining their portfolios:

“I sit down and write about as to what I’ve done. So that happens maybe after every 6 months or so, when I move from one hospital to another. I do so because our training is mainly speciality and hospital-based so normally the nature of experiences or speciality changes when we are shifted to another hospital. As far as the courses are concerned, you see those bits get filled in once you go for a course and if there’s anysimilarly in case of educational activity that I’ve been involved in like teaching or writing, I’ll maybe sit down and write it. Then there are all these meetings we attend every month. Which again I make a point of filling in those bits quickly. And of course there’s a bit about critical incident over there and so if anyone has one, like I had one some time ago, a year ago or something, which I immediately filled in. So that the time when I would go and do it. I don’t do it every day or every week or every month. But every month yes But it’s fairly flexible, it’s not like fixed or anything.”

Such experiences indicate that if trainees prepare the portfolio regularly it does not take much time. However, the one hour every 3 months spent by some of the trainees also indicates that a portfolio is being used only for maintaining a record of training and not for in-depth reflection on experiences, since only the stocktaking of overall training progress is possible in such a short time. This finding that the SpRs felt short of time corroborates the findings of other studies that portfolio preparation is a time-consuming process, and some devotion of time is required to realise its benefits. Smith and Tillema (1998:195) draw on Wade and Yarbrough (1996) to argue that:

“The literature has shown that portfolio construction and compilation is a time-consuming and often cumbersome process, in which the person, depending on situational constraints, collects relevant evidence, decides about the inclusion of performance factors, and integrates the work samples.....”

Too Much Record Keeping

Nearly all the SpRs felt that maintaining the portfolio along with the logbook and filling in the forms for the RITA and appraisal involved too much record keeping. The views of SpR no. 28 summarise this feeling:

“I think, broadly I’m in favour of it..... Problem of it is that as trainees you are getting increasing amounts of record keeping and paperwork to do like first you have to keep a log book, now you have to keep a portfolio.....things where you do write up appraisals and each meeting you go to and things like that, does start adding up to a lot of additional work

just for sort of record keeping and things. So that that's I think potentially the down side of it."

Such views indicate that, as discussed elsewhere in this chapter, there is a great need to rationalise the system as a whole and reduce record keeping by eliminating replication between RITA forms, appraisal forms and portfolio.

However, there is a positive side to it also, since a considerable number of the SpRs (about 20%) believed that it helped them to develop the habit of record keeping. For example, SpR no. 13 felt:

"Some of the things that it's taught me is that if you go on a course or if you do something that needs to go into your portfolio it's easiest to do that straight away, you know when you come home from a course especially if you're going to do an evaluation of the course or an evaluation of a teaching session or a presentation that you've made. So just in terms of the logistics it's good to keep up to date so that you don't forget, you know you do little bits often so you don't sort of have a big lot to do at the end."

The first interviews showed that trainees who already had the habit of maintaining a record found portfolio preparation easier compared to those who did not have this habit. After nearly two years of experience of maintaining the portfolio, a number of other trainees reported that it promoted the habit of record keeping. Thus it may be inferred that the habit of record keeping and maintaining a portfolio were symbiotic.

Misconception that Portfolio is a Permanent Record

It is worth noting that a large majority (about 80%) of the SpRs thought that they could add to the portfolio and that it was a continuously growing document. According to SpR no. 13,

"And I think maybe the main thing about it is that it's not a static thing it continues to change and it continues to grow and expand and it continues to input different bits of information or research or publications that you've done so ever-changing."

But some SpRs felt that they could not replace old records with new ones if better experiences had been acquired. They assumed that they should try to plan their training in such a way that most sections of the portfolio were filled in at least once. SpR no. 23 acknowledged that a portfolio can portray the transformation from SpR to consultant, but thought that it was a kind of instrument which should be used to show the best and worst

experiences from the whole training period and hence some sections should be prepared at the end of training:

“I thought those sort of sections are probably be best left until the end because it’s only at the end that you can actually decide which parts were good and which parts were bad..... I think that’s more useful to do that and the portfolio is something that is to bring somebody from being an SpR to a consultant.”

Awareness of Utility of Portfolio

After two years’ experience with PBA at the QSA, it had come to be perceived mainly as something which notified SpRs what was needed in order to complete their training. When asked about the utility of the portfolio, SpR no. 16 typically replied:

“I can see two main reasons for doing it. The first one is as I say a record of what’ I’ve done I think it’s perfectly valid and I think works quite well on that level. I suppose if there is another function to it for me that it kind of points to what I might have been expected to do in the future.”

SpR, No. 10 also had a similar opinion:

“Well it records what I’ve done. It also gives some degree of guidance as to what I should be doing. Or what some people think I should be doing.”

When specifically asked whether the process of preparing a portfolio helped trainees think about their performance, he was still sceptical, but agreed that it helped in keeping a ‘real time check’ on training progress:

“Well, I think it’s a helpful, constructive framework to keep a check on sort of ‘real time check’ on training progress.”

SpR no.27 had a similar perception, but pointed out that a portfolio also records what SpRs gained from the different activities:

“.....and what you’re gaining from the different meetings that you go for and the different courses that you attend, and what level that you have participated in these meetings and in these courses. So from that point of view it’s really helpful.”

As discussed elsewhere in this chapter, nearly all the SpRs saw the utility of the portfolio mainly as a tool to support summative rather than formative assessment. But the idea that the portfolio is mainly for summative assessment led to further confusion, since some SpRs began to doubt its suitability to assess them summatively.

“....the aim of assessment is to try and pick out people that are sort of under-performing and you know not let people get through to be consultants if they're not, up to the job. Which I think is the main underpinning thing of assessment.....portfolio form ok it can make, yeah it makes you think about what you're doing but, perhaps people you're trying to pick up who are say under-performing, if they're not interested they can again, write what the assessors want to see and they can sort of adapt the portfolio. You know it's like writing your CV for an interview, you sort of modify it according to the job you're going for.” (SpR no. 28)

Thus it can be inferred that the awareness of most of the SpRs (about 80%) was restricted to seeing the portfolio as a tool for recording achievements to support summative assessment and plan further training and they did not know how it related to their learning and self-assessment. SpR no. 16 was very candid about it:

“I don't think that my learning is portfolio-based. I know that's the title of the interview. It's not driven by my portfolio; my portfolio is a retrospective record of my learning. I don't necessarily have an objection to it being portfolio-based but mine isn't currently at the moment.....”

But when I asked him whether some guidance might have helped him, he replied:

“One of the big problems with the portfolio was that it was dropped on us. I know that it comes with guidance notes, but we didn't get an awful lot of guidance about why, how. Like you say, other illustrations, other people's portfolios I think would have been useful. And just a little bit more information and a little bit of discussion about how to fill it in would have been useful..... you tend to find that people aren't always enthusiastic about their portfolios and I think it's because they don't feel much involved in the process. it's been something they've been told to do and that's another chore, as opposed to a means of helping them improve their learning.”

This reflects the irony that the portfolio, which is basically considered as a learner-centred instrument, owned and enjoyed by the trainees (Fisher and King, 1995; Fung *et al.*, 2000) was seen as something external at the QSA. It is possible that if the portfolio had been introduced after involving trainees at the stage of making a decision about whether it should be introduced or not, then it could have generated a wider discussion and the trainees might have owned it - at least as an experiment. Similarly, SpR no. 12 felt that it was not a very pleasurable exercise:

“It still takes, physically takes a while to go through all the bits of paper and compile it. I wouldn't say it was the most pleasurable time I've ever spent. It wasn't really bad and hopefully most of that is done now so it's just a question of just topping it up as I go along. It wasn't too bad.”

These views indicate the feeling of most of the SpRs that their experience of preparing the portfolio was neither very bad nor very pleasurable. This gives us a ray of hope, that by making the desired changes in the portfolio, providing time for preparation, and some guidance, we can make it a pleasurable experience. The need for some guidance was also indicated by the majority of the SpRs. However, their reasons for this varied. A considerable number (about 60%) felt that the portfolio was treated as an independent activity and that trainees were not provided with enough remedial support to sort out the problems indicated in it. SpR no. 15 suggested typically that training in general was not supervised adequately and that consultants should devote more time to this:

“Well, I think the portfolio as it stands is an entirely independent activity and as a consequenceif you do find it difficult in specific situations....., presumably because you don't have the skills at the time to deal with it in a more constructive way, and that's why you're finding it difficult. So to be left to do it independently means that you learn nothing from it other than to identify that you have problems.I think there are issues, I think very little of our training is actually supervised in a positive and constructive manner.”

SpR no. 10 suggested that he did not need guidance in completing the portfolio, but some guidance about its utility might have created more interest, rather than mere compliance:

“I think it's self-explanatory how to fill it in. The layout seems fine..... I mean the only, perhaps guidance as to what is perceived to be the benefits. What is the purpose of filling this out? That would help to guide the way the questions are answered, if you know what I mean. You're asking me why I think it's being done, I would be interested to know why the system feels it's important.”

It may be concluded that the aims of the portfolio were not clear to the SpRs, the implementation of PBA was an isolated activity, and trainees did not know where to get guidance and help. Thus provision of some guidance is necessary so that trainees do not feel helpless in the case of doubts or if they are in need of some help. Stone (1998) also found in his study that a group of students who were provided with guidance and an earmarked time slot for preparation produced more detailed portfolios compared to another group of students who had neither guidance nor an exclusive time slot allocated for it.

Varied Reasons for not Preparing Certain Sections

According to the Director of the QSA, the SpRs were relatively weak in interpersonal skills such as communication skills, teamwork and time management, and so the sections relating to these skills were intended to engender reflection leading to improvement in these areas. However, the content analysis revealed that only one out of the 24 SpRs filled in these sections. The interviews revealed a number of reasons for this. For example, SpR no. 21 maintained the portfolio regularly but never filled in the sections relating to communication skills, teamwork, etc because: “..... and you know sometimes it’s very difficult to find an exact answer. So that was my feeling that’s why it was empty.”

He further suggested that more elaborate directions should be provided at the top of these sections about what was required. For example, it was not clear whether they were supposed to describe communication problems in a particular situation or in general. His views are typical of the views of a considerable number of those SpRs (about 20%) who maintained the portfolio regularly but never prepared the aforesaid sections. The reason for such views may lie in the traditional technical mindset of doctors, in which every issue is considered in terms of ‘black and white’ or ‘right or wrong answers’, and where it is forgotten that there may be some grey areas as well. Reflection, however, is needed to develop understanding in grey in areas rather than in areas which are relatively clear (Schon, 1983). Moreover, interpersonal issues may not have exact answers but honest reflection may lead to insight into the trainees’ own attitudes. Coming to a realisation of shortcomings in one’s own attitudes is a transformative process, leading to the improvement of the personality (Skemp, 1979). The realisation of these shortcomings oneself is crucial for this transformation, since few people accept shortcomings indicated by others (Anderson, 1981). By ignoring these sections, the trainees at the QSA missed the opportunity to study their own attitudes and deprived me of the opportunity to study the effectiveness of such reflections.

Another reason, as discussed earlier, was that most SpRs saw portfolios as being useful principally for summative assessment or certification. With this mindset, it was difficult for them to appreciate the benefits of preparing these sections. About 40% of the SpRs thought these sections were not useful since they only generated discussions about their performance and did not showcase their achievements in any area. The views of SpR no. 30 are typical of this mindset:

"I must admit, I've not filled them in. ...I'm not sure for whose benefit you are necessarily filling that section in. It's potentially time-consuming that few sections to do and I don't know who's going to look at it and I can't see the benefits of filling it in for me so I haven't done it."

A majority of the trainees (about 70%) found it difficult to put problems related to communication, time management and teamwork into words. Even SpR no. 13, who had otherwise prepared her portfolio in great detail, pointed out that:

"... we can all actually think of examples where we've worked as part of the team or where we've actually had communication difficulties whether that be with say ITU, patients, relatives or with other staff members.....but often it's easier to talk about those kinds of things rather than actually write it or type it in,it's difficult to put into sentences."

Most SpRs who did not fill in these sections felt that guidance would have helped them.

For example:

"I think it would be useful to see other people's portfolios..... to get an idea of what the required standard is.That would be useful ...in terms of actually filling it in. It would be nice to have somebody available to talk to, to actually decide how best to fill it in.I haven't had any guidance in filling it in. I hadn't actually searched for any guidance but I wouldn't know where to go other than the Director of School." (SpR no. 23)

The last sentence also indicates that apart from the Director of School, few other consultants had either promoted or supported the portfolio. Helen (1997) found that understanding the process of preparing a portfolio is necessary to realise the aims of portfolio-based assessment, indicating a need for proper orientation and guidance.

5.5.2 Effect of the Portfolio on Reflection

Content analysis revealed very little evidence of written reflection in the portfolios. Discussions with the SpRs about this issue highlighted their attitudes towards reflection and the role of a portfolio in fostering it. The findings may be categorised as below:

Frequency of Reflection

Nearly 70% of the trainees thought that they reflected, though not regularly, and more when some new type of cases were encountered. For example, SpR no. 18 explained his experience:

“No, not on a regular basis but if there was something unusual, an unusual case that I did or an then I might look back, reflect back upon it but it’s not a usual practice, not on a regular basis.”

Other research has also shown that reflection takes place automatically in the case of some problem or when some new situation is faced (Loughran, 1996; Eraut *et al.*, 2000). Yet reflection on routine cases may also prove useful by making explicit their subtleties and nuances and developing understanding about ways of handling different types of case (Fish and Coles, 1998).

Role of the Portfolio in Engendering Reflection

Most of the SpRs (about 60%) believed that reflection is an innate quality, so that a portfolio could do little to foster it. However, almost as many felt that a portfolio is the best available technique to help reflection. The view of SpR no. 15 represents this opinion:

“.....it’s probably a useful exercise as a way of assisting and focusing your thoughts. I’m not sure and I think there are other ways of doing it. But as it stands it’s probably the best that we’ve had so far. But people who are organised, sorted and focused will be that way anyway portfolio or not, and those of us who are a little more chaotic will be that way portfolio or not.”

Similarly, SpR no. 28 argued that writing down reflection would prove only that he reflected, which he believed he did anyway. However, he also shared the view of about 40% of the SpRs that a portfolio might have helped in making reflection more objective:

“Really I suspect what it would do.....formalise it and it would have something on paper to say hey look I have reflected on what I’ve done. Although if I feel that a presentation hasn’t gone well I do sort of, I will just go over it mentally and think which bits haven’t I done? Why didn’t it go well? What did I do wrong? You know was it a good preparation or whatever yeah. So I tend to do that anyway after I’ve done things like that... perhaps a portfolio would make it more objective, you know if you have sort of headings and yeah sort of would break it down more and do it more formally.”

Similarly, when probing questions were asked of SpR no. 10 about the thinking process engendered by the process of preparing his portfolio, he replied:

“Let’s say it asks for a description of the audit meeting and I stopand I think to myself, what did we cover? So it triggers thinking in that regard. Whether it triggers original thought I’m not so sure. I haven’t experienced that yet.”

Such statements reveal that the SpRs felt that portfolio preparation triggers some kind of thinking process but they were not sure about the nature of that thinking. It may be inferred from such views that although the SpRs had preconceived notions about the innate nature of reflection, they had started to realise that writing reflections down may improve its quality. It may be the case that some kind of thinking was taking place as a result of preparing the portfolios but some of the SpRs might not have been aware of it since this thinking might have been taking place at a subconscious level. Korthagen and Wubbels (1995) argue that one of the purposes of promoting reflection is to bring thinking about experience from the subconscious to the conscious level. They further elaborate that systematic reflection is the external presentation or articulation of the inner dialogue a professional maintains with her/himself. It can be inferred from this discussion and the views of the SpRs that preparation was able to generate thinking, but bringing that thinking to a conscious level required more efforts by the individual.

Sharing Reflections

Most trainees (about 90%) suggested that they did not share their experiences enough with their colleagues and thought that it would be better if some opportunities for sharing could be provided. SpR no.18 suggested that a collection of portfolios might work as a

storehouse of experiences, and the portfolios of seniors might be useful for juniors to learn from their experiences:

“It is a useful exercise and by way of imparting or transferring experience from a senior person to a junior person I think it would be a useful exercise if people maintain a pooled source of information.”

Yet the majority were sceptical about writing down experiences and the learning they had gained from those experiences. About 50% suggested that it would be more effective and convenient to share experiences in meetings. The views of SpR no. 27 are typical:

“I think that’s a very good thing to do. I’m not sure about writing down but if one can have a meeting every month or something like that then one can talk about all his past experience and the more interesting cases and all that – that definitely helps.”

As discussed elsewhere in this chapter, there seemed to be three main reasons for preferences for verbal rather than written sharing: it was difficult to describe the whole context in writing; it took time; written experiences could be misused. Nutely and Davis (2001) also found that organisational arrangements could foster or inhibit the process of learning or knowledge creation. Von Krogh (2000) proposes the concept of an ‘enabling context’ for promoting reflection and the sharing of reflection. In their research on “postgraduate trainees’ attitudes towards self-assessment of their surgical skills”, Evans *et al.* (2005) also found that the effective utilisation of self-assessment techniques required the development of socio-cultural capital, whereby trainees feel capable and comfortable making judgments about their own performances and giving and receiving the constructive feedback from their peers. It may be concluded from the above discussion that there was a need at the QSA to develop writing abilities, to allow time for writing about some of the more important or unusual experiences, and to develop a culture of trust where practitioners can share their experiences.

Gipps (1994) also argues that for a portfolio to be authentic and communicative, it is necessary to include the opinions of others in reflection about one’s own experiences.

Moreover, sharing problems and issues not only results in a better understanding of these issues individually but also results in the development of ‘group inquiry’ among practitioners (Addison and Van DeWeghe, 1999). At some universities, such as Southern Maine (USA), significant peer and teacher mentoring has been incorporated into the portfolio development process to promote the sharing of portfolios and to generate discussions on those experiences (see Whitford *et al.*, 2000). At other universities, public presentations of portfolios are arranged where students have the opportunity to present their portfolios and these presentation sessions are used as a springboard to generate in-depth discussion and analysis of various issues (see Zeichner and Wray, 2001).

Writing about Critical Incidents

A considerable proportion of the SpRs (about 20%) were not clear about the purposes of writing down critical reflections. For example, SpR no. 10 felt:

“I think I said to you last time we talked that some of it seems a little bit flowery and a bit difficult to see exactly why it’s relevant.”

But when asked to mention which part of the portfolio was not so relevant, he replied:

“Describe a critical incident, you may have seen it.....Perhaps if I stopped and thought for a while and actually filled it in as suggested it might seem more constructive. ...but as of now it seems a little bit less relevant than the rest of it.”

Such revelations are of concern since the main purpose of describing the critical incidents in portfolio is to engender reflection on what went wrong and how that could have been avoided (Henderson *et al.*, 2002; Cox, 2001). If trainees felt that it was less relevant than other parts of the portfolio, then it could mean either that they did not understand the purpose of describing critical incidents or that they saw a portfolio as an instrument designed solely for recording achievement and not for reflection. In other words, portfolios were used for summative rather than for formative assessment purposes. Similar findings are reported by Davis *et al.* (2001) at Dundee Medical School, that where the portfolio was

used for summative assessment, students desired that its case-discussion component be abandoned.

However, SpR no. 11 clearly accepted the importance of critical incidents, and felt that they foster reflection and learning but are under-utilised because of lack of time and motivation:

“You certainly learn from them. You reflect on them yourself so there should be more reflection as a group so that we can learn from each other’s critical incidents..... Partly because people don’t report them and I don’t really report them myself..... there is not the motivation to learn from them.Again it’s the problem of time.”

Tripp (1993) talks about critical incidents in teaching and reports that if professionals share reflection with their peers in the form of discussing critical incidents, it helps to maintain a reflective dialogue with peers. In keeping with this idea, SpR no.12 preferred to discuss special incidents, whether good or bad, in peer groups, rather than writing about them. However, in the case of something highly critical, he agreed that both writing down the incident and sharing it in a larger group are desirable:

“I think it depends on what the problems are and how serious you view them. A lot of things we talk amongst ourselves, if I think it’s dangerous or unacceptable then I’ll try and take it to a higher level. And what would normally happen, I doesn’t happen very often but if it’s serious enough they’ll try and take it on board and try and sort something out about it. I’m not sure writing every single incident down would definitely be of any benefit to anyone.”

Thus, the reasons for not writing down critical incidents varied from SpR to SpR, and included:

- (i) For some SpRs, it was not important enough.
- (ii) Some SpRs understood its importance but were not sufficiently motivated.
- (iii) Some SpRs were motivated but there was a genuine shortage of time.

However, SpR no. 26 seemed to have a better understanding of the reflection process and he suggested that reflection took place when there was a problem. Moreover, he was also aware of the fact that if you do not know what you are looking for, you can miss it. He said:

“I don’t think of everything I do at the end of each list. Part of it because it’s probably unnecessary if everything went ok. But if there’s disasters or problems I always think could I have done something different, could I have done something better, did I miss anything? But that can sometimes be hard to identify if you haven’t got the knowledge about it, if you don’t know what you’re looking for you don’t know what you’ve missed. I think it can sometimes be difficult to pick up mistakes for things that you could be doing better without occasionally being prompted by seeing best practice.”

Langer (1997) also suggested that mindfulness can occur only when the individual makes a conscious choice to be mindful. SpR no. 26 suggested further that critical incidents were good for reflection. Yet according to him, people did not write about them because bureaucracy was involved in critical incidents, and also, dissemination of the information was a problem: even if it was disseminated, very few people read it owing to lack of time. He also gave an example of a report about a ‘confidential inquiry into internal deaths due to anaesthetical mistakes’ as very useful from a learning point of view, since SpRs had access to this report: even then, very few SpRs read it. He also suggested that there was a need for some guidance in terms of examples of best practice. All these points focus attention again on the key issue that, whatever the method for improving the learning process, its success is greatly affected by the motivation to learn and the availability of support in terms of guidance, time and resources (Eraut, *et al.*, 1999 and Schapiro and Livingston, 2000).

5.5.3 Self-Assessment: tension between portfolio and past experiences of assessment

There is very little difference between reflecting on one’s own performance and self-assessment, but when trainees were asked about self-assessment, they related it to their past experiences of assessment: this revealed a barrier to their thinking and two categories of views emerged about self-assessment.

Potential for Self-Assessment

A considerable number of the trainees (about 60%) thought that a portfolio did not help in any way to promote self-assessment. However, the remaining proportion appreciated the

role of portfolios in engendering reflection and some could recognise why a portfolio was not particularly successful in encouraging self-assessment. According to SpR no. 16:

“I’m not sure that it’s necessarily all that helpful in self-assessment. Partly perhaps that’s because of the way I use it only filling it in once a year. By the time I come to fill it in it’s a little bit late to put right what I hadn’t done or what I have done or done badly. I think if I used it more frequently it could potentially act as a trigger for self-assessment.....”

The above opinion is in accordance with the generally accepted view (Walker, 1985) that for proper self-assessment it is necessary to engage in the process of writing down the experience and reflecting on it as early as possible. Yet most SpRs (about 60%) said they were able to update the portfolio only once every six months. It seems probable that this restricts its usefulness to the self-assessment of the training as a whole: that is, what has been achieved in the last six months and what has been missed. In such cases, detailed self-assessment of single performances would not be possible. However, some trainees felt that the process of writing down the experiences did trigger a process of self-assessment:

“I think we’d probably do that with the portfolio to some extent because when you sit down and actually write it then you have to think about yourself and how you’ve acted and you know what you’re doing and things like that. So I think there is an element of that in there anyway.” (SpR no. 23)

Smith and Tillema (1998:203) also found that sustained use of a portfolio resulted in an appreciation of self-assessment by learners, but that past that experiences of assessment adversely affect learning from self-assessment. They report that:

“Engaging in portfolio compilation did change beliefs towards a more learning-oriented view of assessment. However, learning from feedback was welcomed only hesitantly, which was due to both the prevalent beliefs on assessment and the difficulties experienced in compiling the portfolio evidence.”

In this research study, it is also evident that past experiences of assessment hindered full utilisation of the portfolio, as discussed below.

Effect of Past Experiences of Assessment on Self-Assessment

One SpR, whose portfolio was prepared in some detail, appreciated it as a self-assessment tool. Yet she reverted to the view that a portfolio is good for showing evidence of achievement and for overall comparison of SpRs with each other:

“I think it’s a reasonable self-assessment tool because we’re not children and we have to take responsibility for both our own training and our own development and part of it is showing evidence that over time we actually have progressed and done sort of different aspects that are non-clinical.but I actually think it’s probably a reasonable tool to sort of compare people of the same training grade across the board.” (SpR no. 13)

In contrast, SpR no. 10 felt that it could not be used as a summative assessment tool, since the portfolios of different people could not be compared:

“.....so, in a sense it does act as a self-assessment thing because it helps me to look at, to see what gaps there are in my experience. But as an assessment tool comparatively it has no purpose and has much more limited value because I can’t compare my portfolio with anyone else’s.”

This shows that the trainees saw a use for the portfolio in terms of its potential to compare one SpR with another. One cannot blame the trainees alone for this mindset, since traditional assessment systems focus on norm-based assessment, making it difficult for students suddenly to internalise ipsative and criterion-based assessment without proper orientation. Ecclestone (2000:146, 147) suggests that:

“Learners’ previous ‘assessment careers’ (to adopt Bloomers’ notion of a ‘learning career’) may predispose them to certain responses [to forms of assessment]....”

She further cites Broadfoot (1998) who argues that attempts to create a new discourse of assessment as ‘empowerment’ face encounter obstacles created by old discourses of ‘assessment as measurement’.

Although some of the SpRs saw the portfolio as a self-assessment tool, even then their concern was with technical learning. One SpR pointed out that self-assessment could only reveal mistakes and would not be able to suggest remedial measures. SpR no. 15 complained:

“But that’s not what actually happens (no guidance is available) and as an individual exercise where I sit at a computer to fill in the portfolio and I found my mistakes. But I don’t know how to make it better otherwise I would have made it better and therefore I see no purpose in it, no value in it other than to make me feel worse.”

Such SpRs failed to appreciate that a recognition of one’s own shortcomings is an essential first step for learning, since such shortcomings are owned in a better way by oneself compared with those identified by others (Olson, 1991). Moreover, self-assessment leads to thinking, which in turn results in intelligent learning, when solutions to problems may be found and personality may be transformed by liberating the mind from set notions (Dewey, 1916).

However, the views of SpR no.15 cannot be ignored altogether, since previous studies have also indicated that self-assessment without guidance may leave a person feeling isolated and bewildered about possible paths for further improvements (Wade and Yarbrough, 1996). Seldin (1993) suggests that the limitations of assessment by others and problems of self-assessment can be balanced by having a guided self-assessment, where the trainee can discuss doubts with a coach or mentor according to his/her own choice and need without any apprehensions. Different universities have adapted mentoring in different degrees: in some places mentoring is very intensive, and teachers help students to the extent that they work with them during the process of preparing a portfolio, as in the teacher education programme at the University of Wisconsin-Madison (USA) (Zeichner and Wray, 2001). There is a debate about the optimum extent of mentoring (Rogers, 2001; Guest *et al.*, 2000) and its effect on the development of autonomy in students. Schon (1987) warns that the main danger in mentoring is that what students learn will depend on how the supervisors see the professional knowledge. However, there seems to be a general consensus that some provision of mentoring should be made for the students/trainees and they should not be left totally alone.

5.5.4 Vision of Professionalism

The concept of professionalism seemed unclear to the trainees; their understanding of professionalism was restricted to acquiring technical knowledge and using it for the benefit of the patients. It cannot be denied that this is the most important and basic requirement for professionalism, but trainees should also be aware of the next two stages of professionalism: namely, working for the growth of the profession and monitoring the basic values of the profession in relation to the changing needs of society (Carr, 2000). The vision of the SpRs regarding professionalism may be described by following categories:

Managing Clinical Activities Well

For nearly all the SpRs, professionalism was restricted to doing routine things properly in a spirit of altruism. The views of SpR no. 7 are typical of the majority (80%) view of the concept of professionalism:

“.....professionalism means conscientious and good working knowledge of what they do. You know with a sound knowledge base just somebody who’s interested in what they are doing I suppose that they have a degree of enthusiasm for the job. That’s it.”

For SpR no. 27, the meaning of professionalism was ‘doing things properly’:

“A good professional, well I think, anaesthesia is a very professional branch because after all you’re practising a profession which makes you a professional and you have to do it properly, and that’s when you call yourself a professional.”

For some SpRs professionalism mainly means managing things well and coping with crises.

For others, altruism was the core value of professionalism. One SpR felt that:

“I guess it’s the ability to put the patient before everything and to be able to act in the patient’s best interests without putting your own interests in front of those. That’s the most important aspect, the core to being a professional within medicine.” (SpR no. 23)

Thus none of the SpRs indicated that professionalism also includes monitoring the values of the profession in relation to the changing needs of society or contributing to the growth of the profession as well as themselves. Howe (2002) reports that neither medical curricula nor faculties of medical colleges are explicit enough about the attributes of professionalism and this has resulted in a lack of awareness in students about this issue. The Physicians’

Charter (Sox, 2002) has taken note of this deficiency and it clearly emphasises the components of professional responsibility.

However, about 50% of the SpRs suggested that being a good professional requires good interpersonal skills. SpR no. 16 suggested that:

“There are a number of components to it. But I think it’s just a fundamental principles is always striving to do a good job whatever you’re doing.There are all sorts of things that contribute to that: technical skills, theoretical knowledge, communication and teamwork.”

Another SpR (no.20) also highlighted the importance of generic skills in becoming a good professional:

“To become a good clinician you have to be a good human being and with good manners, discipline and time-keeping. And other things are communication and dealing with others, so those things help and they matter as much as the clinical things matter.”

It may therefore be inferred from the above that SpRs in general appreciated that merely being good at clinical skills was not enough: they should also possess good interpersonal and management skills. The problem is that, as discussed elsewhere in this chapter, they considered themselves already proficient in interpersonal and management skills and this belief created a barrier to improving these skills.

Barriers to Continuous Professional Development (CPD)

The majority of the SpRs (nearly 80%) did not have any plan or vision for their professional growth, and for most of them this was restricted to learning from their seniors and engaging in routine practice. Many did not appreciate the importance of self-directed learning as part of lifelong learning. In replying to the question *“How can you improve your professional qualities and your profession?”* SpR no. 23 represents the strategies followed by a considerable majority for their professional growth:

“By learning from colleagues, by being a good doctor initially, by having a good basis in the non-clinical skills that we learn in medical school and also the clinical skills and by being able to put that into practice at the bedside and being able to integrate all the knowledge that we have for the benefit of the patient basically.”

When another SpR was asked the same question, he replied:

“Just by sticking to the disciplines, in the sense, keeping in mind what you are and how can it be communicated or expressed. And one way of it is like how others feel about you and which may not be true always, but still there is still some component which is probably true.” (SpR no. 20)

Similarly, SpR no. 29 argued that apprenticeship with good seniors is the main way of developing professionalism:

“..... It can be encouraged by watching people who are very careful and who are very good at each aspect.....It’s an apprenticeship and you watch someone as an expert practising and you select from their practice what aspects, you know, you find appealing and you want to copy in your own practice.”

It is clear from these views that SpRs observe their senior colleagues keenly and prefer to learn from their behaviour. Moreover, they modify their own behaviour by observing the reaction of others towards it. But doing this blindly may create a situation in which every member of the profession subconsciously follows the status quo, leading to inbreeding of thoughts and practices and obstacles to the development of independent critical thinking (Carr, 1995:15).

The data here show that the SpRs had good intentions but they were not able to relate self-directed learning or lifelong learning to either their growth as professionals or to the growth of their profession. Moreover, there were some SpRs who had the misconception that only technical learning was required for professionalism and they wanted more didactic guidance in each aspect of training to improve the quality of learning. One SpR with a limited view of learning was strongly against self-directed learning. Her reply to the question *“Does the present training system help to make you a better professional?”* was:

“.....the way we train at the moment here, I don’t think it does help because it seems to be entirely self-directed, you choose what you want to learn, you choose how you want to learn and where you want to go and what you do. Now that means that you have to have a very clear idea of where you want to be and what kind of doctor you want to be, with absolutely no assistance from more senior people as to how you might go about becoming

x y or z. So I think, I don't necessarily believe in self-directed learning and self-directed training." (SpR no. 15)

Such attitudes endorse the concerns raised by the different documents produced by the General Medical Council (1993,1997) and the BMA (1995) about the training of doctors.

However, not all the SpRs held such strong views. For example, SpR, no.10 pointed out that the ability to self-analyse, receive feedback and be prepared to accept criticism is also an important feature of being a professional. This implies that professionals should be self-directed learners. He appreciated that knowing one's weaknesses and strengths is the first step in the process of self-directed learning:

"Sort of self-analysis or feedback and discussion of your own abilities with your colleagues..... and being prepared to accept criticism and something in that sense doctors are not always that professional about." (SpR no. 10)

Yet, for him also, the main features of professionalism were good clinical knowledge, good skills, and good attitudes. Like most of the SpRs, he did not seem to recognise the fact that professionals also have the responsibility to work for the growth of the profession. Lave and Wenger (1991, as quoted by Maudsley and Strivens, 2000) point out that novices in real-life situations are not only supposed to learn from the practice but are also supposed to develop it, and this creates a dilemma for them. Thus, a lack of learning skills combined with a narrow vision of professionalism may make it difficult to deal with such dilemmas and may hamper the professional growth of the SpRs once they have left the formal education and assessment systems (Race, 2000).

Role of Non-Clinical Skills

The SpRs in general appreciated the technical importance of non-clinical activities in their profession. The view of SpR no. 13 indicates the perception of most SpRs in this regard:

"Being a good professional I think is actually being reasonably well rounded. You have to obviously be able to do your speciality in a clinical way but it's actually a lot of the non-clinical things that I think make you a true professional....."

However, the majority of the SpRs did not seem to appreciate the contribution of these activities to the overall development of the profession and to their own professional development. When questions were asked about the role of non-clinical activities such as medical audit, teaching and research, they replied that these activities were good for developing attitudes such as self-discipline, timekeeping and skills like communication. This could indicate that some of them had not come out of the mindset of being a student and thought that the main aim of non-clinical activities was merely to develop in them, certain attitudes and skills, thereby ignoring one of their main aims: to foster the growth of the profession. The problem was further compounded by the fact that some SpRs thought that these activities did not help to develop attitudes either. For example:

“And those aspects of personality are developed at a much earlier stage,by your parents, your schooling, medical school, your friends, your peers and your colleagues. Attending meetings I don’t think engenders professionalism. Doing an audit project, I don’t see how that engenders professionalism.” (SpR no. 10)

The reasons for these beliefs may be that trainees do not understand that non-clinical activities, apart from enhancing technical knowledge, also engender reflection about the state of affairs in the profession, the context of practice and expectations from professionals. This is important, since reflection on the context results in practical enquiry (Ecclestone, 1996, Zeichner, 1987) leading to the development of practice.

SpR no. 21 wanted the non-clinical component of training to be arranged by the hospital and for it not to be the responsibility of the trainee to choose the component of training and seek opportunities for it. Such opinions indicate an attitude of dependence and a lack of desire for self-directed learning:

“I think there’s not much happening regarding non-clinical things you know..... At the moment what happens is that you have to find on your own non-clinical things happening around and you have to look for.sometimes there is no avenues, sometimes you know, you can get a seat, sometimes you can’t. But if that could be included as a part of the curriculum and arranged by the school then it would be much easier for trainees to participate, I think. At the moment it is on an individual basis, you know.”

It seems that these SpRs were unaware of the idea that seeking suitable medical audits, research projects, teaching activities or seminars was in itself part of training. If the school arranged every activity for them, it would prevent them learning to look for and plan these things on their own. Such statements indicate a need to explain to the SpRs that engaging in non-clinical activities on their own is one important way of developing professional attitudes and contributing to the growth of the profession.

Limited Reflection

As discussed above, nearly all the SpRs had a restricted vision of professionalism as simply doing things properly, a view that seemed to limit the scope of reflection to technical enquiry. However, there were some rare cases where they comprehended that professionalism was something that went beyond merely doing good clinical work and having good intentions. For example, SpR no.11 suggested that professionalism meant working beyond the job contract to support the profession:

“For instance there’s a lot to be done as a consultant, which is non-clinical..... Some people in large departments don’t seem to want to take part in that and because it’s not written in their job contracts they can get away with not doing, but they’re not behaving in a professional fashion..... A professional understands that there’s more to the job than what’s written on the job contract.”

When asked whether development of the profession is the duty of professionals he replied that the profession should be self-regulating. This indicated a deeper understanding about professionalism, since self-regulation is a central characteristic which differentiates professions from occupations (Carr, 2000). According to SpR no. 11:

“Yes, it has to be self-regulating in that. You cannot have somebody regulating it, who is completely outside of your profession because they don’t fully understand what’s involved. I mean there are Royal Colleges and then the GMC above them are the ones who regulate it and you do need to sort it out amongst yourselves.”

This contrasting minority view suggests that it would be possible to develop this kind of understanding about professionalism amongst most of the SpRs in order to engender critical enquiry.

However, Eraut (2003) argues that considerable change in the process and nature of reflection occurs as professionals progress from novice to expert level. If we follow the five-level taxonomy of skill acquisition proposed by Dreyfus and Dreyfus (1986), the SpRs would be considered to be at the competent level, which is above novice and advanced beginner level but below the proficient and expert levels; SpRs are therefore nearly at the mid point of the medical professional continuum. This creates a dilemma for them since they are supposed to reflect not only for self-development but also for the development or improvement of the profession. However, under the pressure of self-interest, their focus shifts towards reflection for self-development. Lave and Wenger (1991, as quoted by Maudsley and Strivens, 2000:538) highlight the dilemma of newcomers to the professions thus:

“On the one hand, they need to engage in the existing practice...to become full members of the community in which it exists. On the other hand they have a stake in its development as they begin to establish their own identity in its future.”

It is therefore necessary to appreciate the special needs and mindset of the SpRs and, at the same time, to make them aware of the higher level of reflections in which they can engage. Ecclestone (1996) also suggests that novices need to be informed about the different purposes of reflection.

5.5.5 Learning from Experience

In order to explore the reasons why the trainees did not seem to accord enough importance to the portfolio, I asked them in the second interviews what they thought about learning from experience, as compared to learning from books or other educational material. From their replies it seemed that nearly all the SpRs valued learning from books as well as from experience. The view of SpR no. 15 represents the views of the majority:

“Alright, I find that (experiences) far more helpful than just books and I find if I learn something from a book and understand it and then spend time in that clinical layout; and

you can actually see it for real then it makes far more sense and the day after it becomes accessible to me in a very useful manner. Whereas if it's just out the book and it is never highlighted to me practically I struggle to integrate the knowledge into a useful format."

Similarly, SpR no. 20 talked about learning rules of thumb or tips from experience:

"Even in the case of theoretical knowledge some principles and practices are better learned by experience..... Like some troubleshooting and tips, which are very helpful in practical life and which can be learned practically rather than from books. But not all, some are better from books".

In a similar way, SpR no. 27 suggested that such experiences develop 'personal preference':

".....you do learn a lot which is not given in the books when you practically look after the patients....., that by your experience by the way you look at things and all that, everybody forms their own views and ideas and develops personal preferences for certain things to do."

SpR no. 29 argued that learning from books and learning from experience reinforced each other:

".....That doesn't mean just learning all the new stuff, it also means reinforcing stuff that you've learned already, and I think, you have to be doing that when you're working in a theatre, you have to reinforce your clinical work with book work and vice versa."

Thus the SpRs generally accepted that learning from experience was as important as learning from books and that they reinforced each other. Similar findings are reported by Khera *et al.* (2001), who found that SpRs believed that knowledge they had obtained from books remained incomplete until it was supported by clinical experience.

As far as creating new knowledge from routine experiences was concerned, nearly all the SpRs believed that experience was important and taught them to handle different patients in a different way based on the context of the patient, but they felt that learning from experience did not add to theoretical knowledge. The view of SpR no. 10 is typical:

"Well, as you say experience which is wisdom and knowing how to judge the situation.Everything is unique to that one patient. Books may tell you the general principles and guidelines or more specific books might tell you how to handle the more specific problem. But it's up to the clinician to mould that advice for that one particular patient and that's what comes with experiences. But practical experiences don't increase your theoretical knowledge."

Such opinions show that although the SpRs understood the importance of learning from practical experiences, they did not appreciate the fact that much of this practical knowledge could also be converted into words and shared. It can therefore be inferred from such views that there is a need to inform SpRs about the nature of tacit knowledge and the role of conscious reflection in utilising that knowledge properly (Schon, 1983, Eraut, 1994).

As far as sharing learning from experience is concerned, one of the major barriers discussed earlier in this chapter was that most of the SpRs believed that it is difficult to describe in writing most things which are learned from experience, and include details of the context of the patients.

Another issue related to learning from the experiences of others was whether consultants were able to transfer the theoretical knowledge generated from their experience to the SpRs. Most SpRs felt that consultants were generally able to relate theoretical knowledge to their practical experiences, but this varied from consultant to consultant. The view of SpR no. 16 is typical:

“I think that’s extremely variable. Some people seem to have a particular skill for conveying that kind of concept and sometimes that is also backed up with an unending library of anecdotes and illustration. And then other consultants don’t seem to be as good. It’s a fairly even spread. The majority of them are reasonably good at it, some are very good and a few are poor.”

SpR no. 15 agreed that it was better if consultants discussed their critical experiences in the form of case reports, but pointed out that this was very rare:

“I don’t know about that I haven’t seen that done. But I think if it’s as in case reports and this is how it is handledCase reports are always very good and very useful, particularly if you can discuss them or talk about them and think about them actively then that becomes a very powerful way of learning.”

Thus, at the QSA there appeared to be a lack of effort at all levels to convert implicit knowledge generated from experience into explicit knowledge and then to share it within the community of practice. It is therefore important to promote awareness about how tacit

knowledge and sharing reflection can create a learning community or community of insider practitioner researchers which will in turn encourage and nurture creation and the development of professional knowledge (Fish and Coles, 1998).

5.5.6 Portfolio, RITA and Appraisal

The trainees were asked a question during their first interviews about the suitability of portfolios for the RITA and appraisal, and their views are discussed in section 5.3. As discussed there, most trainees appreciated the utility of the portfolio for the RITA, which is a summative assessment, rather than for informal formative assessment, namely appraisal. This is an antithesis for the aims of a portfolio. Questions on this issue were again asked during the second interviews to explore any changes in the views of the SpRs after using portfolios for about two years. However, there was no considerable change in their views. It was unfortunate that a large proportion of the trainees (about 50%) saw the portfolio as more suitable for the RITA, which is a summative type of assessment, rather than for appraisal, which is a formative process. The views of SpR no. 18 represent this misunderstanding:

“...so I don't think the portfolio was involved in the appraisal. RITA is another matter and the trainees' performance is looked into. So I believe that the portfolio and the logbook details are more appropriate for a RITA.”

When the question was raised with the Director of School, regarding why he associated the portfolio with a summative type of assessment such as the RITA, he pointed out that if the portfolio was not linked with it, a considerable proportion of the trainees would not prepare the portfolio at all. With hindsight, his assumption seems to be true, as is clear from the above views of the trainees. However, a mandated use of the portfolio distorts its potential as a self-assessment and learning tool. Smith and Tillema (1998:193) argue that:

“A mandated use of portfolios, however, has a number of serious drawbacks, since they are then not being developed for learning or professional growth but to prove a person's ability to comply with given standards; they are not then freely collected specimens of performance but a fulfilment of the requirements. They are not then intended for reflection

and learning; despite the efforts put into them, such portfolios are only being used for making a (placement) decision.”

A key issue is therefore whether a portfolio should be used simultaneously for summative and formative assessment: this issue is discussed in detail in the final chapter.

5.5.7 Non-Clinical Components of Training

The content analysis of the portfolios indicated that non-clinical activities were generally being pursued by the SpRs but not to the desired extent. The reasons for the low priority given to non-clinical activities were explored in the focused interviews, which revealed multiple reasons for the small amount of activity in this area. These reasons varied from trainee to trainee and from one type of activity to other, but some reasons were common and pervaded all types of non-clinical activity. These reasons are categorised as below:

Non-Availability of Time

Nearly all the SpRs pointed to a shortage of time. This reason is more applicable to some activities, such as research and audit, which took up lot of time and, according to most SpRs, it was not practicable to pursue them alongside normal clinical work. SpR no. 27 pointed out that:

“No, to be honest with you I can’t find time to pursue these activities. I’m involved in some research now,it took me almost 1 ½ to 2 years to get my protocol ready and to get ethical approval, and we have now been involved in this research for almost 3 months. And I can see that it takes up so much time and it’s not possible to do a lot really unless you take time out and just concentrate on research.”

There may be other reasons, such as an overload of clinical work in the British NHS, which was facing a shortage of doctors at the time of the study. In such a situation, it becomes difficult to relieve doctors from clinical work.

Junior trainees in years 1 and 2 of their training who were preparing for their preliminary or final exams were more worried about these exams and admitted that they were their main priority. SpR no. 16 pointed out:

“Well, whenever you’re sitting an exam, the exam is the pressing objective and so most or any free time gets devoted to the exam and I suppose other things like workplace-based training and ongoing audits and things like that tend to be pushed behind for the purposes of passing the exam.”

It may be inferred from the discussions above that lack of time for non-clinical activities was a point of concern, although there may be different reasons for this, such as priority being given to clinical work and passing the Royal College exams. However, these priorities would remain and hence in order to promote non-clinical activities, some time has to be earmarked for them in the training plan or curriculum.

Lack of Relevance

As discussed above, lack of time was the most commonly cited reason for the lack of non-clinical activity. However, a detailed analysis of the situation indicated that this was only partly responsible. There were also other reasons, such as a view that it was an unnecessary activity. For example, SpR no. 23 pointed out that engaging in non-clinical activity did not make any difference to one’s performance as an anaesthetist consultant.

“People who are very organised are able to take on more than others but, you know, I don’t think that makes them any better at their job than for instance myself. Everybody is doing it, you have to, because it’s part of our training requirements and it’s part of professionalism, you know that aspect.”

These views revealed a belief that taking part in non-clinical activities did not really improve their performance. Yet it is surprising that the same trainee accepted that non-clinical activities are part of professionalism.

SpR no. 11 pointed out that the problem of time is not as acute as it is made out to be:

“Yeah, I think there’s plenty of time there Most hospitals give half a day a week for non-clinical. Not all, but most. But also there’s time, you know, you get a day off after you’ve been on call. There’s time in the evenings. I think it’s part of your training to make time yourself to do these things. Certainly I’ve felt that there’s been plenty of time in my training to do these. And if you look at other specialities, they are more busy than us....In anaesthesia there are a lot of people who are more lazy and take their half day a week as just time off and then complain at the end of the year that they haven’t had enough time to do an audit project, which just isn’t true, they just haven’t used their time properly.”

If we consider this opinion as valid, it may be assumed that lack of time was not the only problem: apathy towards these activities and complacency were also responsible. However, this particular trainee was considered as an exceptional case in terms of overall performance, so he might have been more efficient in managing time and a hard worker compared to an average trainee.

However, a considerable majority of SpRs (about 60%) appreciated that becoming a good consultant also meant being good at non-clinical activities. SpR no. 28 argued:

“I think, you know, being a consultant, it’s more than just being good clinically.”

According to SpR no. 11, non-clinical work was given a low priority by consultants and SpRs because its importance was not well understood and it was considered less glamorous:

“.....although it’s a less sort of glamorous part of it and a less sort of well understood by other people. The non-clinical work still needs to be done and so I think that it’s good that we do all this.”

It seems then, that there is a need to create more awareness of the importance of non-clinical work in the profession. A portfolio is one step in that direction.

Frequent Rotation of Trainees

One of the reasons cited by a considerable number of trainees was that they were rotated to different hospitals every six months, and because of this they were not able to pursue certain non-clinical activities such as medical audit and research. A period of six months is perhaps not sufficient for these activities, where time is needed to identify the problem, to formulate methods, collect data and analyse them. Since rotation cannot be avoided, a suggestion was made that activities such as audit could be done in phases, where one trainee decides the problem and formulates the methods for conducting the audit; the next trainee who joins that hospital can carry out the data collection and analysis. However, SpR no. 20 saw this problem from another angle:

“Sometimes I am able to find time, but not always. And it is not very well organised life during training, and you cannot plan very much. Still you can find some extra time or some leave etc. and then you can organise accordingly. But not to the extent of an established life,because during training it is frequent change of hospitals and

dealing with different people, different rota methods, different commitments as well as clinical work depending on the staff shortages”

This trainee was from a country in the Indian subcontinent, and may be expressing a different cultural perspective, since stability is seen as a more important aspect of life there. Frequent changes in the working environment, mainly changes in people with whom you work, may therefore create more discomfort for people from this background compared to people born and brought up in a Western culture.

Curriculum Implementation

Some trainees who had really wanted to pursue non-clinical activities realised that, although the curriculum document emphasised the non-clinical component of training, the training structure did not have enough focus on these activities. SpR no. 13 pointed out that SpRs were not offered training in non-clinical activities:

“Maybe not ideal for the non-clinical part because our training structure is very much based on the clinical experience and clinical training. You know we don’t have a lot of teaching or training about management issues and lots of the other things that you became embroiled in as a consultant. So probably for all grades, but certainly I think for senior trainees, more focus should be placed on the non-clinical aspects of it.”

Such views indicated that there was a need to have more theoretical input to help conduct non-clinical activities in a better way. Yet study of her portfolio revealed that, despite these constraints, she was involved in many non-clinical activities, perhaps because she had appreciated the importance of non-clinical activities for becoming a good consultant:

“...But I think as you progress through the training grades maybe the relevance of a lot of these other sorts of non-clinical aspects increases....., you know they’re involved in management, they’re involved in teaching, they’re involved in other things. So I think it is important to start to incorporate these because it’s training us for what being a consultant’s actually about. It’s not just about going into theatre and anaesthetising a patient, there’s actually a lot of other aspects involved.”

Thus trainees who had realised the importance of non-clinical activities had started demanding more theoretical input and structural changes in the training so that they could

overcome the difficulties they faced when trying to pursue these activities. From this analysis of the views of the trainees, it may therefore be concluded that many factors were jointly responsible for the low profile of non-clinical activities at the QSA.

5.5.8 Preferences of Trainees for Different Non-Clinical Activities

Some non-clinical activities were more popular than others. For example, teaching was preferred by nearly all the SpRs over research, which was not pursued by a great majority. The views of the SpRs on the major non-clinical activities are therefore discussed below in order to understand their choices as well as specific problems in pursuing different types of activity.

Teaching

Teaching is one activity which is unanimously accepted as an important component of training. Nearly all the SpRs saw teaching as helping to develop their understanding of the taught matter as well as improving communication skills. According to SpR no. 7:

“.....it’s a good experience I think, it makes you realise how much you know, when you start to try to teach somebody else. It’s good from that point of view, quite enjoyable.”

Some SpRs felt that teaching fostered the growth of individuals as well as the profession.

According to SpR no. 16:

“.....still I think it’s absolutely essential both for the growth of the profession and also on a personal level in a number of different ways. also I think that teaching helps consolidate your own learning, and you don’t fully understand something until not only can you teach it to someone else but you have taught it to someone.having the understanding to be able to convey your understanding to someone else is a higher level of understanding to just being able to get your head round something.....So, yeah I think it’s essential.”

For SpR no. 15, teaching was also an enjoyable social activity, which helped develop interpersonal understanding:

“I’m quite fond of teaching..... But it also makes you interact with people, it makes you clarify your own thoughts and I think it makes the department work better when the juniors

and the seniors and trainees interact and learn about each other, that integrates the department. ”

However, for a small minority of SpRs, teaching was also an activity that had to be learned because it was needed for being a consultant, making external motivation, rather than the pleasure of teaching, the driving force:

“.....that’s part of being a consultant, you know, you will at some stage end up teaching someone ...and they’re skills which you know need to be learnt. ” (SpR no. 28)

The above findings corroborate those of Bligh (2000), who points out that teaching is quite a popular activity but there is still a need to make it more interesting and effective by providing training and resources.

Audits

SpRs valued audit to the same extent as teaching. Most SpRs recognised the significance of medical audit and cited three main purposes of it: namely, to understand the practice, to develop analytical abilities and to identify gaps between aimed practice and actual practice.

SpR no. 16 described the importance of audit in the following words:

“... I think that the process of doing an audit project probably contributes quite a bit. One contribution is the background reading that you have to do as part of planning the project,.... It also does help develop analytical skills,....., and that critically analysing our practice or our procedures is essential..... I’d love to say yes, but realistically a small short-term trainee-based audit rarely produces significant changes in practice..... I can’t think of many which have had a major impact. ”

The above SpR also indicated that small short-term audit programmes were unable to influence practice. Similarly, SpR no. 28 also pointed out that audit is a necessary part of the profession and hence was externally motivated to learn it, but he also had his doubts about its effectiveness:

“So, again that’s part of your training as a consultant it’s something that you’re gonna have to do throughout your career. So it’s something that you need to learn how to do. So I think..... audit is an essential part of training. As to how useful a lot of audit projects are, that’s another thing. ”

Trainees raised such doubts because in their experience, in most cases, audits did not result in improvements in practice because the findings from them were not implemented:

“Yes, these are very good things provided the loop is completed and audits have to have the follow-up definitely. Just on-off audits may not be very helpful for learning purposes. They may give some knowledge and idea of what’s going on but overall if you aim to improve something you have to have the follow-up.....” (SpR no. 20)

SpR no. 13 was very candid and pointed out that one reason audits were not taken seriously was that some audits were done just for the sake of doing them:

“I think its benefit is first of all to make people aware of a possible problem, but I think it’s actually about completing the cycle and returning to see whether we’ve actually learnt from past sort of mistakes or problems.....unfortunately some audits are done that are sort of done just because you need to do an audit project.”

It may be inferred from such views that SpRs were generally not satisfied with the quality of the audits carried out. SpR no. 15 pointed out that most audits would require more time to produce substantive and reliable findings, and repetition would also be required to verify that remedial measures had taken place. But all this is not possible in a six-month attachment at a hospital. She therefore suggested that provision should be made for running audits in hospitals, and different SpRs should contribute to them during their attachment in that hospital:

“.....whereby you audit, you define pre-set protocols or best standard which you try to before the audit. Then you review, you get to your audit and you come up with how to achieve best practice and then you have the expectation that within a year’s time it would be re-audited. But, in actuality you move around so rapidly and the people have their own interests and the consultants don’t act as a team to say well these are the audits that have been done and these need repetition. There’s no reason why we couldn’t have a set of running audits. Because our whole point is to constantly do the circle. Now how long the circle takes to complete, it can be a year, it can be five years. So have it on the books, have exactly the same audit design and say now that you’ve arrived as a SHO or a SpR, this is an audit we did, are you interested in it? Ok, you’re interested, set the audit off again and they could do that and that would improve the department practice..... But that doesn’t happen, or I’ve not seen it happen except once with Dr P....., who ordered it again, that’s the only one I’ve seen in the region.”

These suggestions indicate that audit was highly valued by the SpRs but they felt an intensive need for reforms in the way audits are conducted and the extent to which their findings are implemented.

Research

SpRs in general valued research as important for the profession and enjoyable and challenging for themselves. SpR no. 23 expressed his feelings in this regard:

“I want to go back and do some more research because I thoroughly enjoyed it, and I want to continue doing a bit more and it’s interesting, it’s fun, it’s stimulating. It focuses the mind on actually trying to learn something and do something and it’s a challenge as well.”

But when they were asked about the relevance of learning acquired by conducting research into their clinical work, some had different views. Most recognised that doing research developed an understanding that helped them comprehend findings of other research:

“The ability to look at papers and extract relevant information from them is important as a consultant needs this. So yes, I think they are important to day-to-day practice because they can make you a better anaesthetist to be able to know what is happening around. If you’ve been there and you’ve done it then you will know how it is performed and you will know how it applies to clinical practice.” (SpR no. 23)

Similarly, some SpRs believed that the experience of conducting systematic research helped in learning from day-to-day experiences in a more scientific way. According to SpR no. 13:

“If we give someone a certain anaesthetic or do something a certain way and it’s good we might do it again and we might do it ten times and there might be a problem or something So I think, we’re always sort of testing out different theories. Alternatively, you can look at consultants who, three consultants who do things three different ways. But you might actually draw, have it your own different way but draw bits that you think are best from all So I think in a very modest way sort of use that understanding in clinical experience as well.”

This view corroborates the view of Schon (1987), that professionals should be subjected to an experience of scientific research so that they develop an attitude of enquiry:

“For it is true, paradoxically enough, that although normal science research cannot be conducted in practice, and its criteria are both more or less stringent than those of the

research in practice, experience in the methods of normal science research can be a superb preparation for reflection –in-action.” (Schon, 1987: 322)

But some SpRs did not agree that the experience of conducting systematic research helped them learn from routine experiences. SpR no. 16 argued:

“The right answer would seem to be yes, but practically speaking, I mean I’ve not done much research of any kind so I don’t really know. Practically speaking it probably has relatively little impact. Although obviously that isn’t the way we’re supposed to analyse our everyday experiences.”

However, SpR no. 11 indicated that one important learning outcome from conducting research and reading research papers was that the findings of all research cannot be assumed to be correct, so findings should be taken only as a suggestion and applied very cautiously:

“I think the one thing that I’ve learnt about sort of reading lots of papers or being involved in sort of research and publications and that is that if you read something in a journal or something’s presented as this is the new way to do it, you don’t necessarily just automatically accept anything that comes along.”

Thus SpRs valued research not only for its findings but also as an experience, which develops an attitude of scientific enquiry and cautions that all research findings may not be true unless proved by other research.

Reading Journals

Most SpRs accepted the importance of reading journals with reference to their day-to-day practice. The views of SpRs nos. 23 and 11 are representative of the views of most SpRs:

“Yes I mean the review articles in most journals are useful for day-to-day practice and there are a lot of other articles that are useful for day-to-day practice.” (SpR no. 23)

“..... the journals are more interesting, an interesting read and what new things are being developed really. There’s I would say in any one year there’s maybe 5 or 6 changes to my practice that I’ve picked up from journals. So definitely it’s there and it’s important. It’s slightly limited.” (SpR no. 11)

Yet they pointed out that only a few articles had direct relevance to practice and most were pure scientific articles which helped develop the profession but were not directly useful to their own practice:

“Some of the articles are interesting and of clinical relevance but most are not. And therefore the day-to-day practice basically, my day-to-day practice is dependent on the previous experience or the experience I gained during the training. And of course journals help but not to the extent to change the practice..... I can give you an example, I have read hardly 2 or 3 articles which have changed my practice during my training as an SpR in this place.” (SpR no. 20)

“..... quite a number of articles that are relevant to practice. Maybe not so much the sort of research articles more the sort of letters of correspondence and more sort of clinical things off them. But it’s always difficult to find time to keep up with your journal reading.” (SpR no. 13)

In addition to the scarcity of articles related to practice, another commonly cited problem was lack of time. However, interested SpRs tried to find the time to read them:

“I do but I often get the train into work and that’s the only time to read them. And if it weren’t for having half an hour each morning and each evening on the train I’d probably not read anywhere near as much as I do. Realistically, I’ve only subscribed to three journals and I really read about two or three articles from each per month..... I tend not to read the ones which are detached from my clinical practice.” (SpR no.16)

“There’s some very nice papers and so yeah, I try to read at least two or three. I tend to take them in some of these long cases you sit and you actually read the journals.” (SpR no. 15)

However, there existed a small minority of SpRs who did not find reading journals useful.

The view of SpR no. 10 is representative of the views held by such SpRs, who read journals mainly to collect information necessary for passing the exams, and not for improving the practice.

“No, I think most of the papers that are published are theoretical and fairly obscure, medical research..... I did read more before the exam. But again I’m not that convinced that that particularly changed my everyday practice. It was more learning it for the exam.”

Thus it may be inferred that most SpRs acknowledged the importance of reading journals, and those who were interested were able to find time for this either during the long cases or during journey from home to hospital. There was, however, a shortage of articles which were directly relevant to practice.

Publishing in Journals

The SpRs unanimously agreed on the importance of publishing in journals for both the growth of the profession and their own growth. However:

“No, this is not an easy job. There are many factors, that if you have enough time, even then you have to be dedicated towards it and it is a time-consuming thing. But these are helpful to learn basically as well as getting your name published and enhancing the CV.” (SpR no. 20)

SpR no. 13 had published 3 research papers and a few letters and suggested that the process of writing papers taught them many things:

“...one of the things you learn from it is that it's not easy and it takes time ..it actually taught me quite a lot of skills about the non-clinical aspects of a professional, such as things about time management, communication. Sort of working independently and having to decide yourself what your working pattern is and keeping to a framework. So at times it wasn't pleasant and I didn't like it but I actually think I probably learnt a lot from it.”

Some SpRs indicated another problem, namely that there was no formal provision for developing skills for this purpose and hence they had to strive to acquire these skills without any guidance. However, they also pointed out that very few consultants were able to guide in this matter:

“It's difficult to do you get no training whatsoever on how it should be done. It's something you need to develop outside of your training.It's challenging. Both, to start off with you need to get the content, and you generally need consultant support to get something off the ground. That can be difficult. There's only a handful of consultants in this region who seem interested in developing that side of things.” (SpR no. 11)

Thus it can be seen that publishing was considered important but was a neglected component of the SpRs' training. And there is a need to develop skill in academic writing

and to provide guidance at the beginning. When one SpR informed me that he had published a letter in a journal, I asked him, whether he was comfortable with writing letters in terms of content and language. He replied:

“Yes, you’re not really asking the right person who did it. It did cause a lot of difficulties. In terms of content! But not for me, I didn’t have a problem with writing the letter. My letter was published but the result and fall-out from that caused problems…….”

He described his experience as follows:

“Yes, it was political which was never my intention. The intention was really to get something on my CVand it was just a letter sent off with this purpose,So it seemed very exciting at the time.And I would probably stand by things that were stated in the letter. But what my co-author and me failed to predict was the implication of the things we said....” (SpR no. 10)

Such experiences indicate that trainees should be guided in academic writing so that they can convey technical or managerial points without creating any controversy. Some SpRs felt that they should not write just for the sake of writing and that it should be done only when there is new information to be shared:

“I’ll write if I have something useful and practical to say. I’m not arguing with a piece of literature paper just because I want to have my name in print for my CV. I’m not doing anything for CV enhancement…….” (SpR no. 15)

In the same vein, SpR no. 30 argued that not everyone is interested or skilled in doing research and publishing papers and hence it is too much to expect everyone to do these things:

“I think there’s a lot of papers probably, which are just done for the sake of getting a paper and I think people who want to do research only should do research. I think it’s sort of making everyone to do research, you know if you read through the journals there is a lot of garbage in them and you won’t like to be part of that…….”

These SpRs also felt strongly that very few professionals in any field had research and publishing skills, and so not every SpR should be expected to engage in this activity. However, when I discussed this issue with the Director of School, he said that the school

suggests that every SpR engage in it, just to give them an opportunity and some exposure to the field, since if they do not try it, they will not know whether or not they find it interesting. He also pointed out that many SpRs did have the capability of doing this, but that they underestimated themselves: such SpRs might never initiate research or produce a paper in their whole career and hence it was important to break that psychological barrier before they became consultants.

Preparing a portfolio may help in this regard since it develops writing skills, and articles based on practice may be generated from the portfolio. Thus if professionals start maintaining a portfolio regularly, it may increase the number of practice-based articles (Gupta *et al.*, 2001), as advocated by some of the trainees.

Managing the Hospitals

Nearly all SpRs appreciated that consultants and SpRs should be involved in managing hospitals because as future consultants, they will be expected to do this and so they should start to learn how it is done at this stage. SpR no. 10 pointed out that it was necessary for better management that doctors should be involved along with other supporting staff members as part of participative management.

“But I think it would be wrong to suggest that doctors should be removed from all aspects of managerial planning because, just because I think their opinions about how the system is arranged are important. Well all the staff, the nurses, the porters, you know, everybody should be involved.”

In the same vein, SpR no. 11 also argued that non-clinical persons alone cannot imagine the requirements of the clinics and hence doctors should be involved in management:

“And so I think it’s a good idea that clinical directors are involved with the administrative side of it and then it starts to get everyone thinking along the same lines.”

SpR no. 20 pointed out that the duty roster should be prepared only by consultants and that this work should not be assigned to secretaries since they were not aware of the training needs of different trainees:

“Yes, they should be, because that is the part of the training and professionalism as well... at present, roster making is basically done by the secretaries or some form of administrative people who have minimum knowledge of the training needs of SpRs.....”

It can be inferred that the trainees were interested in management, although, the study of their portfolios revealed that they were minimally engaged in management work and, in most cases, this was limited to preparing rosters. However, a small number of SpRs took on some management projects.

Questions Asked by SpRs about Portfolios

In all the interviews, I informed the SpRs that they could also ask me questions about portfolios or about this research. A considerable number of SpRs took me up on this offer.

In the first interviews, only one of the twenty-four SpRs asked questions but in the second interviews, six out of sixteen asked questions. It can be inferred from this that, over the course of the two years, the interest and involvement of the SpRs in the portfolio as well as in this research increased considerably. These questions indicate their perceptions, doubts and concerns about the portfolio and this research, and some of the most common questions are presented below.

“I’d love to know what your findings have been so far and what changes will occur to it really, whether there are any?” (SpR no. 23)

“Is a portfolio being used in a judgmental way in the RITA process at the moment? Are people being judged on whether they should proceed because of what’s in their portfolio?” (SpR 11)

“It’s just sort of a nosy question. Do you know when you look through all of the portfolios, are you just seeing how we filled them out or which parts different people have filled out. What are you trying to gain from the information you’ve seen from them?” (SpR no. 13)

“What ways do you see of encouraging people to use them as intended as a continuous learning tool and self-assessment tool rather than just something which is done once a year?” (SpR no. 11)

This indicated that SpR no. 11 had already recognised the importance of self-assessment and the role of the portfolio in it. Yet, he was worried that some external motivation would be required for most of the SpRs to use their portfolios properly.

5.5.9 Summary of Findings

Findings are grouped and summarised under following headings:

Self-Directed Learning

It may be inferred that most of the SpRs (about 80%) were not self-directed and were mainly externally motivated, as they prepared their portfolios basically in order to showcase their achievements in the RITA and appraisal, as a CV, or because they would also need to maintain them as consultants. So they attached less importance to sections such as teamwork, communication, time management, critical incidents and personal development plan since these did not demonstrate any achievement. A considerable number wanted guidance and help from tutors even for the selection of non-clinical activities. This showed that they were not self-directed learners to the extent expected from trainees aspiring to be consultants in the near future. However, it seems that the habit of self-directed learning is also content-specific, as most of them were self-directed as far as learning clinical components was concerned. Yet the lack of self-directed learning even for non-clinical components is a point of concern since it is an important prerequisite for CPD (Holm, 1998). The portfolio was introduced at the QSA on the assumption that it would help foster habits of self-directed learning so that learners would continue to learn even after leaving the formal education and assessment system (Friedman Ben David *et al.*, 2001). But this research shows that an attitude towards self-directed learning is also a prerequisite for the proper use of portfolios. Smith and Tillema (1998:204) similarly noticed that:

“The results show that the people who think more favourably of self-directed learning use the portfolio as an instrument for personal development more easily and readily. Evidence was found that a conceptual change in views about self-directed learning and self-

assessment is more likely to occur if the participants see the relevance of the portfolio process to their own work”.

Professionalism

The majority of the SpRs had a very narrow notion of professionalism as consisting simply of ‘having good clinical knowledge’, ‘good attitudes’, ‘spirit of altruism’ ‘doing things properly’ and ‘ability to manage workload’. They were not aware of two other crucial components: ‘working for the growth of the profession’ and ‘assessing the values of the profession with respect to the changing needs of society’. As a consequence they accorded less importance to non-clinical activities. For the same reason, the majority did not engage themselves in critical enquiry about their practices and their reflections were restricted to technical enquiry (Ecclestone, 2000,a.). However, two SpRs out of sixteen had an understanding that developing the profession and the self-regulation of the profession are also part of professionalism.

Self-Assessment

Although the portfolio is basically designed for self-assessment, the majority of the trainees (about 60%) wanted to use it as evidence of their achievement in the RITA and appraisal. However, as it was not examined in detail during these processes, they stopped preparing it in detail. This association with summative assessment led to further problems, since the trainees doubted its effectiveness in this regard and this in turn resulted in low acceptability of the portfolio. As discussed in Chapter 3, a portfolio can either be used for formative assessment or for summative assessment at any one time and its use for both simultaneously may lead to inherent contradictions.

Some SpRs felt that they already engaged in self-assessment and reflection and saw the portfolio as being more useful for those who did not know how to carry out self-assessment. This attitude worked as an obstacle to the effective preparation of the portfolio and to deriving any benefits from it. A majority felt that the portfolio helped them in self-

assessing their overall progress in training, but it did not engender a capacity to self-assess as far as skills and knowledge were concerned. However, these SpRs were those who did not prepare the sections related to critical incidents and the evaluation of other non-clinical components of training. The SpRs who prepared these sections accepted that preparation fostered self-assessment of their knowledge and skills. Two out of sixteen SpRs claimed that the self-assessment engendered by the portfolio was not effective since it only pointed out their shortcomings and not the techniques/methods used to overcome these. Some SpRs accepted that for true self-assessment of an experience or performance, writing down reflection on that experience/performance should take place as soon as possible after the experience or performance. Since the majority prepared their portfolios only once every six months, it would be unrealistic to expect that the portfolio could foster self-assessment. Another obstacle to engendering self-assessment was the traditional mindset of the SpRs concerning assessment, in that they assumed that the main purpose of it is certification for the comparison of one SpR with another. Even when some SpRs did try to self-assess their performances, this was restricted to the technical aspects of their practice and there was negligible self-assessment of behavioural aspects and associated values.

Reflection

A considerable proportion of the trainees (about 80%) spent only about one hour every three months maintaining their portfolios. This indicated that the portfolio was being used solely to keep a record of training and not for in-depth reflection on experiences. 90 % had not prepared the sections related to interpersonal skills; since problems related to these did not have clear solutions. The trainees had certain perceptions regarding reflection, such as it takes place only in the case of some problem or new situation or that it is an innate quality of the person and hence a portfolio can do little to foster it. However, a majority of the SpRs felt that a portfolio is the best available technique to help in reflection. A considerable number argued that writing down reflection would prove only that they had reflected, which they do anyway. However, during further discussions with them, they

agreed that writing down reflections made them more objective. There were two opinions about sharing experiences with the help of portfolios. One, held by a considerable number of SpRs, was that sharing experiences in meetings is more fruitful because it may generate discussion, but it is not possible to write everything down. The second, held by a smaller number, was that a collection of portfolios might provide a storehouse of experiences for future trainees and for research purposes. The SpRs who prepared sections relating to critical incidents realised that writing down reflection helps in improving the quality of reflection since it brings thinking from the subconscious to the conscious level. But some SpRs pointed out that recording critical incidents in writing had created bureaucratic problems. Moreover, there was no mechanism for disseminating the information on critical incidents described in the portfolios, nor would the SpRs have enough time to read it even if it were disseminated. The SpRs can be placed in three groups as far as reasons for not writing down reflections are concerned: (a) SpRs who did not understand the importance of writing down experiences and reflection on these; (b) SpRs who understood the importance of doing so but who were not sufficiently motivated; (c) SpRs who understood the importance of it and were sufficiently motivated, but who had a genuine problem of shortage of time. Nearly all the SpRs valued learning from books as well as from experiences. They pointed out that learning from experiences is more about the subtle nuances of the context. This learning also helped them in taking decisions. Moreover, they believed that most of this type of learning could not be expressed in words. This belief might be the reason for not trying to express learning from their experiences into words. However, none of them used the phrase ‘tacit knowledge’.

Importance of Non-Clinical Activities at the QSA

According to the director of the QSA, one purpose of introducing the portfolio was to increase the participation of the SpRs in non-clinical activities. However, this research shows that although the portfolio drew their attention to these activities, on its own it was unable to achieve this aim since the SpRs in general gave a low priority to the non-clinical

components of their training. There were many factors responsible for this low priority, including a lack of time and motivation in the SpRs, a lack of planning and guidance at school level, little value attached to these activities in the profession itself, a lack of opportunities for carrying out certain activities and the system of rotational attachments in different hospitals.

Teaching was unanimously accepted as an important component by the SpRs and they felt that it helped in developing their understanding of the taught matter as in well as in improving communication skills. The SpRs valued audit to the same extent as teaching owing to its role in maintaining standards of practice, though they did not take audits seriously since, in most cases, the findings of the audits were not implemented and the audit loop remained incomplete. Moreover, some good audits required more than six months to complete, while most SpRs were attached to one hospital or speciality for only six months. They therefore suggested the introduction of joint audit projects, where two or more SpRs could complete a project by working in series one after the other.

The SpRs in general valued research for its findings as well as as an experience, since such experiences helped them to judge the reliability of findings of other research. However, they were equally divided as to whether the experience of conducting research helps in learning systematically from day-to-day experiences. They pointed out that it required special interest and efforts to pursue research and hence very few SpRs did so. Reading journals was recognised as an important activity, but the majority could not find time to do so, while a small minority found time in the operating theatre during long cases and during the journey in trains and buses from home to hospital. It may thus be inferred that attitude rather than lack of time, was the main reason for low readership. However, an important issue was raised, that most of the articles published are related to pure theoretical research and very few are directly related to practice. The SpRs also unanimously agreed on the importance of publishing based on research and experiences of routine practice. Yet the majority of them accepted that they could not do this since it required dedication, time

management and special skills such as academic writing skills. Some of them also pointed out that if any guidance had been available they might have tried it. The majority appreciated the need to learn how to manage hospitals and also liked being part of a management team. Yet the opportunities available to them in this regard were restricted to preparing duty rosters.

Scope for Improvement in the Implementation of PBA

At the QSA there was no follow-up mechanism to facilitate either the preparation of the portfolio or to solve the problems faced by the SpRs in its preparation. However, it is also a fact that no SpR has approached the Director of School regarding any of these problems: these problems were raised only in the interviews conducted for this research. It can be inferred that the management of the school did not show any initiative to explore the problems being faced in the preparation of the portfolios, but nor did the trainees inform the management about these problems. As a result, PBA could not be assimilated in the teaching-learning process and it was treated as an isolated activity. Another weakness pointed out by a considerable majority of the SpRs is that they did not have words to describe their experiences about interpersonal issues and generic skills. This indicates a lack of ability on the part of doctors to describe interpersonal situations. One reason may be that the undergraduate curriculum for medicine allows very little space for social science subjects owing to an emphasis on natural science subjects. Trainees were not clearly aware of the utility of portfolio, how to prepare it, or in what breadth and depth to describe different experiences in it. This lack of awareness created an obstacle to harness the potential of PBA. A considerable number of trainees wanted guidance in completing the portfolio. To have opportunity to receive guidance in understanding the concept and purpose of a portfolio may be a genuine desire on the part of the trainees. Finally, the SpRs did not have a complete vision of professionalism or of their role in the growth of the profession.

Chapter 6

Discussions and Conclusions

As the title of the study suggests, the main aim of this research was to understand the process and effects of an intervention of PBA at the QSA and to suggest remedial measures to improve its effectiveness. However, as discussed in the first chapter the following research questions emerged from the literature review, study of the context and pilot interviews:

- (I) What are the attitudes of SpRs towards Portfolio-Based Assessment (PBA)?
- (II) To what extent are SpRs self-directed learners?
- (III) Which type of reflection can PBA promote amongst SpRs, and to what extent?
- (IV) To what extent does PBA enhance self-assessment, ipsative assessment, formal formative assessment and summative assessment?
- (V) How does PBA fit into the existing system of learning and assessment at the QSA?
- (VI) How can the existing system of PBA be further improved?

The critical evaluation of these questions in this final chapter is based on a detailed content analysis of the portfolios and an analysis of the second interviews, while at the same time referring back to the literature review and the analyses of the first interviews and the responses to questionnaires.

6.1 R.Q. I: What are the Attitudes of SpRs towards Portfolio-Based Assessment?

From the data analysis, it may be inferred that nearly all the SpRs appreciated the portfolio as a tool for assessing their non-clinical skills, but they saw its utility as being mainly for summative rather than for formative purposes of assessment. However, most (nearly 90%) appreciated that it helped them in planning and monitoring their training on a regular basis.

Some of them felt that it worked as a kind of ‘real time check’ on their training progress and, as a format, it focused their attention on targets and provided a map of growth. The most frequently made positive comment about the portfolio was that it provided a structure in which to report their experiences. These findings concur with the literature (Borko *et al.*, 1997; Geltner, 1993; Cole *et al.*, 1995). Similarly, about 50% of the SpRs felt that, for them, the portfolio worked as a motivator, since documenting experiences gave them a sense of achievement and, at the same time, indicated what else needed to be achieved. As discussed elsewhere, most of the SpRs initiated the process of preparing their portfolios as a result of external motivation, to use them for certification purposes. However, later on, they also found that this process itself motivated them to achieve more in the training. This occurred because the process of preparing the portfolio improved self-awareness in terms of strengths and weaknesses. This finding also supports the existing literature (Dutt-Donner and Gilman; 1998; Yueh, 1997 and Brown, 1997).

Most of the SpRs (about 60%) wanted to use the portfolio as a CV. This desire indicates that they had some erroneous concepts regarding the portfolio: if the portfolio is used as a CV, this undermines its potential, since trainees are likely to use it to project their capabilities and achievements rather than for honest reflection on their performances. This is an important issue, making it essential to communicate to SpRs that the portfolio is much more than a CV, although, they will be able to prepare their CV quickly with the help of their portfolio whenever they need to. Some of the SpRs appreciated the fact that a portfolio is not something static and is, instead, dynamic in nature. This is clear from the terms prefixed to the word CV by different SpRs. One SpR called it a ‘Dynamic CV’, another a ‘Rolling CV’, while terms such as ‘Ongoing CV’, ‘Extended CV’ and ‘Glorified CV’ were also used. The use of these prefixes indicates that some of the SpRs realised that a portfolio is not merely a CV. Some also recognised that it would help them to identify gaps in their training and to plan for the future. It

can therefore be inferred that although the SpRs saw its utility as being mainly for summative assessment, they were also subconsciously using it for formative assessment. This formative assessment may be more effective for learning in some ways, since it is informal, is carried out by oneself and is free from the disadvantages associated with formal assessment by others (Boud, 1997).

However, this formative assessment was mainly restricted to the meso level of performance, since the SpRs used it mostly to review their overall performance over a period of time and only a very small number reported using the portfolio to reflect on isolated performances (micro level) such as critical incidents. Similarly, the SpRs did not use the portfolio in order to reflect on their role in the development of the profession and or for assessing the values of themselves or the profession (macro level). It therefore may be inferred that much effort is needed in order for self-assessment to encompass formative assessment at the micro and macro levels (Borko *et al.*, 1997; Snyder *et al.*, 1998; Ecclestone and Swann, 1999a).

Despite these strengths and their potential for learning and development, the portfolio neither engendered enthusiasm in most of the SpRs nor was its preparation considered as an interesting activity, as was evident from the low priority accorded to it by about 80% of the SpRs. They completed it only when it was necessary to do so for the RITA or appraisal. During the interviews they cited lack of time as the reason for this, but a few of them (about 20%), who had very positive attitudes towards the portfolio, did find time to maintain it regularly.

There appeared to be numerous reasons for this attitude towards portfolios; some of these were rooted in the nature of the portfolio itself, and some in the trainees' past experiences of learning and assessment. The main reason seems to lie in the conflict between the portfolio and the SpRs' existing images of learning and assessment. It is evident that the different purposes of assessment were not clear to the SpRs and they were unable to relate the purposes of assessment known to them with the portfolio.

Moreover, for nearly all the SpRs, it was their first experience of engaging in formal self-assessment of any kind or of preparing a portfolio, hence they could not appreciate the purposes of self-assessment in general or portfolio-based assessment in particular. Fisher (1993) also suggested that the philosophy of portfolio-based assessment is quite different from traditional techniques of assessment, making it difficult for students, teachers and administrators to understand its underpinning philosophy. As pointed out above, most of the SpRs wanted to use the portfolio for summative purposes and this created further confusion about how suitable it was to assess and certify achievement properly. Similarly, the SpRs' past experiences of norm-referenced testing may be the reason for concerns such as how trainees would be compared with each other at a national level. A considerable proportion of the trainees (about 65%) felt that a portfolio would be helpful in an assessment of their clinical competencies. These SpRs may not have been aware that the purpose of a portfolio was not to assess clinical competencies technically but to engender internal reflection in order to improve those competencies with reference to their context of use.

A considerable majority of the trainees (about 70%) considered it as additional paperwork. The reason for this feeling was mainly the big, detailed format of the portfolio, which had to be filled in alongside existing RITA and appraisal forms. This issue is discussed in detail in the response to research question no. 5, dealing with the compatibility of the portfolio format with the RITA and appraisal formats and the interaction of PBA with the existing assessment system.

However, one SpR had very strong negative feelings about the portfolio; she considered it as an insult since, according to her, the introduction of the portfolio is based on the assumption that SpRs did not reflect properly. Furthermore, she was against assessment in general, since she felt that most assessment is biased and inaccurate and is used for control rather than for improving the teaching and learning process. She therefore saw political rather than academic

reasons for this initiative. Although she may be treated as an exceptional case, her views cannot be rejected outright, as a number of other SpRs also had such feelings about the portfolio, though to a lesser degree. Moreover, her views expressed the idea that officials and politicians might use the portfolio as one more instrument to assess the competence of SpRs and to control them (Snadden, 1999). This may appear to be more true if SpRs see the portfolio as a “Dossier Portfolio” rather than as a “Learning Portfolio”. The use of a portfolio in this manner may undermine its potential in the present socio-political climate where professionals are being questioned and their autonomy is being restricted (Fish and Coles, 1998).

Very few SpRs had prepared the sections relating to time-management, teamwork and communication skills. Some SpRs (about 30%) believed that they already possessed such skills and so there was no need to devote time to these issues. However, such SpRs may not appreciate that their assumption about their abilities may be wrong and that there is always room for improvement, which can be realised through regular reflection. Another reason for omitting these sections was that these sections were not useful for showcasing their achievements, as they wanted to use the portfolios mainly to assist them in getting a certificate. Some SpRs (about 20%) maintained other sections of the portfolio regularly, and pointed out that there was no sense in preparing these sections since there was no exact answer for these issues. The reasons for such views may lie in a technical mindset in which most issues are considered in terms of black and white, or right and wrong answers. Moreover, reflection is needed to develop understanding in less concrete areas, rather than in areas which are relatively clear (Schon, 1983).

However, there were some genuine difficulties associated with these sections: about 50% of the SpRs found it difficult to comprehend the abstract issues and to sort out what to write and what to omit. About 30% pointed out that they were able to comprehend the issues and problems tacitly but that it was difficult to express them in words. There were other

apprehensions, concerning for instance, discussing interpersonal issues in writing. In general then, the benefit of these sections was not realised. Yet, at the time of introducing the portfolio, the Director of the QSA was interested mainly in these sections, since there were no other methods for reviewing the interpersonal skills of trainees.

Similarly, about 20% felt that they already reflected on their performance and planned their training in a systematic way and so did not see much point in completing these sections, but suggested that a portfolio might be more useful for other SpRs.

It is reported that the process of preparation of a portfolio promotes the habit of record keeping (Dutt-Doner and Gilman, 1998). This research confirms that view but it also shows that the reverse is also true. Some SpRs (about 20%), who already had the habit of record keeping found preparing a portfolio more useful. This suggests that the relationship between a habit of record keeping, and maintaining a portfolio is symbiotic.

Differences Owing to Basic Disposition towards the Portfolio

Trainees were asked how they saw the utility of the portfolio with reference to learning and assessment. Two distinct groups had two different perceptions. One group regarded the portfolio mainly as a tool for showcasing their achievements for summative assessments such as the RITA and as part of a CV for selection for consultants' jobs. Another group saw its utility mainly in planning and monitoring their training. This perception resulted in a difference in approach to preparation. Those in the first group prepared it only when their RITA was due and felt disappointed if their efforts were not recognised by the RITA panel. Those in the second group prepared relevant sections whenever they had completed some component of training or whenever they encountered something unusual or different during clinical experiences. This research indicates clearly that the disposition of trainees towards portfolio greatly affected their approach to preparing it.

Differences in Attitudes According to Gender

A comparison of the attitudes of female and male SpRs shows that some female SpRs had an extreme reaction towards the portfolio at both ends of the spectrum. Some SpRs (such as SpRs nos. 4 and 13) liked the idea of a portfolio very much and their portfolios were more detailed; the portfolio of SpR no. 13 was one of the most comprehensive portfolios of the 24. In contrast, SpR no 14 was totally averse to the idea of the portfolio, considering it as an instrument designed to prove that reflection was taking place, and so did not prepare the portfolio at all. However, the number of female SpRs who were strongly in favour outnumbered considerably those who were strongly against.

Most male SpRs were moderate in their liking or disliking of the portfolio. There may be two reasons for this difference in views:

- (i) Females were more open in expressing their feelings while males could moderate their feelings while expressing them (Batenburg *et al.*, 1999)
- (ii) Females generally liked the idea of a portfolio more than males owing to its qualitative nature, the provision made for expressing views and feelings, the scope it offered for participation in assessment procedures, its sensitivity to individual needs and concern for interpersonal relationships. Harris and Curran (1998:91) also report that:

“Women seemed to be more positive and more knowledgeable about portfolios, consistent with the idea that they are more community-oriented, interpersonally sensitive, and likely to engage in participative approaches to leadership than men.”

Differences in Disposition According to Seniority in Training

SpRs have to complete five years of specialist training before they are awarded a certificate of completion (CCST). Three distinct groups emerged in the study according to their year of education. The first group belonged to years 1 and 2 of training, and these were more concerned with passing their Royal College exams and learning clinical skills. The non-clinical

component of education was therefore a low priority for them and these SpRs completed their portfolios very sparingly. The second group was in the fifth or final year; trainees in this group were more concerned about future jobs and most saw the portfolio more as a CV than as a tool for learning. There was also a genuine problem for this group since they had to fill in most of their portfolio retrospectively, as it was introduced when they had already completed four years of training. SpRs from years 3 and 4 formed a third group which showed more interest in using the portfolio to support learning in the non-clinical component of education. The different circumstances of the different groups therefore influenced their basic dispositions towards the portfolio considerably and this is reflected in their portfolios as well as in their views about the process of preparing them. This suggests that different formats of portfolio might be designed for different groups, taking into account their learning needs and other circumstances.

Differences in Attitudes Owing to Ethnicity

Around three quarters of the respondents were British, the rest being from the Indian subcontinent, mainly from India and Nepal. One SpR of British origin had received his schooling and undergraduate education in South Africa. If these SpRs are grouped as British and non-British, there does not seem to be any difference in basic disposition towards the portfolio. This may be because neither group had had any previous experience of self-assessment or portfolios at undergraduate level. It seems that both groups had had similar experiences of learning and assessment in the past, since the British developed the current education system in the Indian subcontinent. However, recently, self-assessment has been introduced in British schools and parts of the higher education system but not in the Indian subcontinent.

Although there were no apparent differences in attitudes towards the portfolio, SpRs from the Indian subcontinent had specific problems. These SpRs found it difficult to work in a system where they were frequently rotated to different hospitals and different specialities, since in the

Indian subcontinent, stability of life and permanent acquaintance with colleagues are generally considered more important than in the West. These SpRs took more time to settle in with new colleagues and this reduced the time available to pursue non-clinical activities at different placements.

However, one difference which I anticipated at the start of this research, namely that non-British SpRs would have more difficulty in narrating their experiences about time management, teamwork and communication compared to their British colleagues, could not be tested, as neither British nor non-British SpRs narrated these experiences.

6.2 R.Q. II: To What Extent are SpRs Self-Directed Learners?

The content analysis of portfolios (as discussed in section 5.4) and the analysis of data obtained from the first interviews (as discussed in section 5.3) indicate that the SpRs neither reflected enough nor reflected critically. Moreover, it can be inferred that as learners they were not sufficiently self-directed and were largely motivated by external factors, such as certification and comparison with others, and so wanted to also use the portfolio for these purposes. Around 60% of the SpRs wanted to use it as a CV. In addition, most SpRs had a very narrow vision of professionalism (as discussed in section 5.5), which affected their attitude towards the different components of training and self-development.

More than 75% of the SpRs prepared their portfolios just before the RITA, focusing on sections where they had an opportunity to showcase their achievement to the RITA panel, rather than using it for planning and monitoring their learning. Responses which required evaluating the performance of either themselves or others were much fewer; only 50% evaluated their contribution in the areas of presentations, lectures and tutorials. Moreover, only 25% to 40% of the SpRs responded to questions such as: “What went well? What went less well? What was good about this course? What was bad about this course?” One indicator of

self-directed learning is the ability to plan one's own professional development (Miffin *et al.*, 2000). Yet only 29.2% (7 out of 24) of the SpRs prepared a professional development plan for the following year.

It may therefore be inferred that the trainees were either reluctant to assess their own performances or were unable to put down their thoughts in words. It cannot be concluded firmly that the trainees were reluctant to self-assess, however, since most had filled in their portfolios retrospectively. It may be expected that in future when trainees prepare their portfolios immediately after experiences, they will respond to most of the questions in more detail.

This finding raises a concern about attitudes towards self-directed learning and the extent of professionalism in SpRs. These issues were explored in the focused interviews, which revealed that the majority of the SpRs did not have any vision of their continuing professional development: for most of them, this was restricted to learning from their seniors and engaging in routine practice. The data show that they had good intentions but they were not able to appreciate that once they left the formal education system their growth as professionals, as well as their contribution to the growth of their profession, would depend on their lifelong learning, based on skills in self-directed learning (Davis *et al.*, 1995). Some SpRs even had some misconceptions about self-directed learning. For example about 30% apprehensions that self-directed learning might lead to their receiving absolutely no assistance from seniors in the future. Such misconceptions may hamper the development of positive attitudes towards self-directed learning. However, not all SpRs were so unaware and some of them were sensitive to the fact that the ability to self-analyse and to take steps to remove one's weaknesses is part of being a professional.

Roughly 20% of the SpRs wanted non-clinical activities to be arranged by the hospital, rather than its being the responsibility of the trainees to choose which component of training to undergo and seek avenues for it. An attitude of dependence or a lack of will for self-directed learning may be one of the reasons for such desires. It seems that these SpRs were unaware of the idea that searching for suitable medical audit and research projects and finding opportunities for teaching and seminars were crucial parts of the training.

A small proportion of the SpRs (3 out of 24) were so reluctant to plan their own training that they suggested that questions such as “What do you expect to achieve next year?” should not be asked in a portfolio, since they expected to engage in activities when the opportunities became available. It is true that sometimes trainees were unable to follow their plan due to the non-availability of opportunities, but in most cases the appraisal panel took care of their training needs and tried to arrange training accordingly. Thus the tendency of not planning training appears to indicate a lack of initiative or interest in self-directed learning amongst some SpRs.

A further indicator of deficiency in self-directed learning was that about 60% of the SpRs wanted guidance in preparing the portfolios and some of them even desired that the process of preparation should be monitored. Such desires indicate an attitude of dependence and compliance. However, the SpRs may not be solely responsible for this, since these views might have their roots in images of didactic learning from the past, where they were told everything and were neither supposed to search for information nor to think about solutions (Shaughnessy and Slawson, 1999).

However, it cannot be stated conclusively that the SpRs were not sufficiently self-directed as learners, because it seems that attitudes towards self-directed learning are also content-specific, and that motivation to learn is rooted in a particular area. Some SpRs who showed that they

valued self-directed learning restricted it to clinical skills and were not sufficiently motivated to learn non-clinical skills. Thus, judging by the scant evidence of self-directed learning visible in the portfolios, it can only be inferred that the SpRs are less self-directed in non-clinical skills. Although some researchers argue that self-directed learning motivates students to learn more (Race, 2000), this study shows that the reverse is also true: namely, that motivation to learn also affects the attitude towards self-directed learning. In other words, the relationship between self-directed learning and motivation to learn is symbiotic.

Nonetheless, there is a need for an orientation programme to clarify the concepts of self-directed learning and to indicate the opportunities available in the training for self-directed learning. In addition to this, some training programme may also be arranged on 'self-learning skills'.

6.3 R.Q. III: Which Type of Reflection can PBA Promote amongst SpRs, and to What Extent?

There was very little evidence that reflection took place in the portfolios at the QSA. Any reflection was mainly on non-clinical skills, such as teaching, medical audit, research projects, meetings and seminars, training at different attachments and publications in research journals. There was negligible reflection on issues related to interpersonal skills such as teamwork, time-management and communication. Similarly, there was very little reflection on isolated performances or on clinical issues such as critical incidents.

Data obtained from the interviews indicated that the foremost reason for this lay in the beliefs of the SpRs concerning reflection. About 60 % of them thought that they reflected, though not regularly, and more when they encountered a new type of cases. Other research also shows that reflection takes place when new types of problems are faced, suggesting that, these trainees might be correct. Nonetheless, they should also be aware that reflection on routine cases may

also prove useful by making explicit the subtleties of such cases and by developing understanding about ways to handle different types of case (Eraut, 1994).

Around 60% of the SpRs believed that reflection is an innate trait, so that a portfolio can do little to foster it. Yet a similar number of SpRs felt that a portfolio is the best available technique to help foster reflection and about 40% of those appreciated that the portfolio had helped them to reflect more objectively. At the same time, there were stray comments from a small minority, such as “Writing down reflection in a portfolio has the only advantage that we can show to others that we have reflected.” indicating the presence of some negative undercurrents. However, it may be inferred that generally the SpRs had preconceived notions about reflection, but began to realise that writing reflections down improves the quality of reflection.

Certain reasons for the low levels of reflection were content-specific; for example, as discussed earlier in this chapter, the SpRs did not reflect on issues related to interpersonal skills because:

- (i) It was difficult to describe the whole context of the incident in writing.
- (ii) There was not enough time available to write down incidents in detail.
- (iii) Written documents could be misinterpreted or misused.
- (iv) There was no advantage in writing about these issues since they did not show any achievement and so were not useful for the RITA or for a CV.

Similarly, the SpRs reflected little on their critical clinical experiences. Apart from lack of time, other reasons were that bureaucracy was involved in critical incidents and even if these incidents were written down and someone wanted to share them, dissemination was a problem. And even if they were disseminated, very few doctors read them owing to lack of time. One SpR gave the example of a report about a “confidential inquiry into deaths in operating theaters due to anaesthetical mistakes”, which was a very useful report from a learning point of view, and the SpRs had access to it: even then, very few SpRs read it. Apart from content-specific

reasons it is evident that the reasons for not writing down reflections varied from one SpR to another, and these were that:

- (i) For some SpRs, writing down reflections was not important enough.
- (ii) Some SpRs understood the importance of doing so but were not sufficiently motivated.
- (iii) Some SpRs were motivated but there was a genuine shortage of time.

It may also be inferred that another major cause of the lack of reflection shown in the portfolios was that the SpRs had not understood clearly the contribution of non-clinical activities to the overall development of the profession and to their own professional development. The majority neither treated them with the required sincerity nor reflected deeply on these activities, since they saw their utility only in developing certain skills and knowledge. This could indicate that some of the SpRs had not emerged from the mindset of being a student and appeared not to realise that they were becoming fully-fledged professionals and could influence the profession and contribute to its growth. It may be the case that until the role of the non-clinical component of training and the role of the individual in the profession is made clear to SpRs, it is unlikely that they will take these activities seriously and reflect critically on them (Pencheon, 1998).

Nevertheless, neither the SpRs nor the portfolio was totally responsible for the lack of reflection. Social and psychological factors also played their role in restricting the amount and depth of reflection in the portfolios. Factors such as personal fears, lack of trust in the honesty of peers and in the capabilities of superiors all created barriers to sharing and making full use of the portfolios. As a result of personal fears, some of the SpRs did not dare to engage in honest and in-depth reflection on their own performances. These fears seem to have been of two types. The first is of looking within the self and encountering the 'actual self', which conflicts with the 'ideal self' (Rogers, 1983) and the second results from a lack of confidence in doing self-evaluation for the first time. Such personal fears may be tackled if some psychological help is provided to trainees initially until they have built up their confidence

(Eraut *et al.*, 2000). At some institutions, one mentor is attached to each student to help and guide self-assessment. Freeman (2000) argues that postgraduate medical education is quite fragmented and occurs at different geographical and other settings, and hence there is a need for someone who consistently interacts with the trainee a over long period of time in order to understand his or her strengths and weaknesses and guide accordingly. However, the choice of the amount and type of help should rest with the student (Miffin, *et al.*, 2000) Because of a social fear of exposing their weaknesses to others, most of the SpRs avoided sharing their portfolios with peers and supervisors, thereby losing some benefits of sharing them. These social fears were rooted in images of assessment which were based on past experiences of norm-referenced assessment, which was used principally in order to compare students with each other, rather than to provide feedback for continual improvement.

A further reason for social fear may be the use of the portfolio for summative assessment, suggesting that if the portfolio is not used for summative or other formal purposes, then trainees will have the choice of sharing it only with people they trust sufficiently. Moreover, they may share different parts of the portfolio with different people according to the nature of the part and the faith they have in the capability and honesty of the person with whom they are sharing it. And, if they have such a choice, then they may engage more deeply in reflection and prepare their portfolios with more honesty.

In order to explore the reasons why the trainees did not seem to attach enough importance to the portfolio, I asked them in the second interviews what they thought about learning from experience compared to learning from books or other study material. Nearly all of them said that they valued learning from experience and from books equally but the majority believed that it was not possible to describe in words a considerable proportion of the things learned from experience. However, they could not explain why it was not possible to describe all they had learned from an experience and nobody used the term 'tacit knowledge'. It may be inferred

that the SpRs did not appreciate that much practical knowledge can also be converted into words and shared. This also indicates that there is a need to inform SpRs regarding the nature of tacit knowledge and the role of reflection in utilising it properly. This may be one step in the direction of promoting better learning from experience.

To understand the nature or kind of reflection in which the SpRs engaged, it can be compared with the typology proposed by Ecclestone (2000b: 149). Appendix no. xvi enumerates the purposes and aims of different types of autonomy and associated types of reflection according to this typology. It is clear from this comparison that most of the SpRs had some technical or procedural autonomy, since their reflection was limited to 'achieving own aims within set or predefined boundaries'. Some showed personal or practical (as in one's own practice) autonomy to a considerable extent since they gave evidence of self-management and self-direction and were aware of options, interests and possibilities of progression. Yet the portfolios of even these SpRs did not reveal any deep reflection on their affective, cognitive and psychomotor capabilities. According to Ellstrom (1997), this is a kind of vertical progression of the individual and not a horizontal progression or development of the outreach of the individual in his or her context.

Horizontal progression requires practical enquiry which encompasses learning for interpersonal understanding (Mezirow, 1981), and the construction and reconstruction of knowledge according to the needs of the context (Ecclestone, 1996). The portfolio at the QSA had the scope for generating discussion on the context of practice and interpersonal understanding since it contained sections on teamwork, communication, time management and non-clinical activities such as teaching, audit, research, etc. However, it could succeed in achieving this aim only in part since some trainees had reflected on the context of practice for the improving the quality of audits, teaching and research, but nearly all had ignored the sections related to interpersonal understanding. Moreover, they did not share their portfolios with each other for

the reasons discussed above, and hence debate on the context of practice and interpersonal understanding which is a necessary condition for practical enquiry (Kemmis, 1985) could not be generated.

As far as critical autonomy is concerned, there were only fleeting examples of ‘cognitive synthesis and evaluation’ and ‘social commitments and sense of responsibility to a community’. In some ways, it may be said that the kind of reflection in which the SpRs had engaged may be categorised according to typology proposed by Ecclestone, as procedural (technical) and to a considerable extent as personal (related to practice) but not as critical (emancipatory), such as reflection on any tension between the values held by the SpRs and problems in achieving those values (Ecclestone, 1996, 2000). Whitehead (1992) argues that critical inquiry results in revealing the tension between values held by professionals and problems in practice in maintaining those values.

It may be said, therefore, that the portfolio used at the QSA did not engender personal or critical inquiry, but at the same time, it has not hindered such inquiry as other assessment methods sometimes do (Heron, 1995). In other words, this research shows that the portfolio alone can neither be credited with engendering reflection of a higher level nor could it be held responsible for hindering such reflection. A portfolio can facilitate reflection at the level of critical inquiry only if other suitable conditions for reflection exist. Eraut *et al.*, (2000) suggest three conditions for fostering reflection: namely, the presence of some challenge or problem, the confidence of the learner and support available to experiment and act freely. In the case of the SpRs at the QSA, the reasons for a lack of critical inquiry seem to be rooted in images held by them about learning, assessment and being professional; and about the role of the self in these processes.

Most of the SpRs had a narrow vision of professionalism and, for them, the meaning of the term professionalism was limited to having good clinical knowledge, attitudes and skills and using them for the benefit of patients in a spirit of altruism. They were not aware of two other aspects of professionalism: ‘working for the growth of the profession’ (Eraut, 1994) and ‘evaluating the values of profession with respect to the changing needs of society’ (Carr, 1992). This lack of awareness seems to be a key reason for the SpRs’ restricting their practice to improving their clinical performance and working altruistically to their full capacity.

One reason for the small amount of development in critical thinking may be the practice of following seniors. It was clear that the SpRs observed their senior colleagues keenly and preferred to learn from their behaviour. Moreover, they modified their own behaviour by observing the reactions of others towards it. This may be required to maintain the standards and conventions of the practice. However, doing so blindly should be avoided for the development of independent and critical thinking (Ginsburg *et al.*, 2000).

Moreover, Eraut (2003) argues that considerable change in the process and nature of reflection occurs as professionals progress from novice to expert level. And as SpRs may be considered to be at the beginner or competent level of the medical professional continuum, it is natural for the focus of reflection at SpR level to be only on self-development and not on development or improvement in the profession. Ecclestone (1996:158) also suggests that novices need to be informed about the different purposes of reflection. She argues in reference to novice teachers that:

“The focus and purpose of reflection need to be made much more explicit than they currently are. They might need to be more structured and possibly more prescriptive for beginning and inexperienced teachers to experience different types of reflection with different purposes and values. If we do not do this, there is a danger that novice teachers in particular only experience fairly trivial or individualised concerns for reflection during their initial or in-service training.....”

It is therefore necessary to appreciate the needs of the novice professionals and their mindset, and at the same time to make them aware of the higher level of reflections in which they can engage for the benefit of the profession and society, as well as for their own benefit. PBA has to take this into account explicitly rather than leaving it to chance.

6.4 R.Q. IV: To What Extent Does PBA Enhance Self-Assessment, Ipsative Assessment, Formal Formative Assessment and Summative Assessment?

At the QSA, PBA was partially successful in its aim of assisting different purposes of assessment. It only helped minimally in the formal formative assessment of non-clinical activities or formative assessment by others, since at the QSA the portfolio was not evaluated in detail during formal formative assessment processes such as appraisal. However, other studies, such as that of Davis *et al.* (2001:364) at Dundee Medical School, concluded that the portfolio was also able to assess non-clinical components of training:

“Portfolio assessment provides a powerful approach to assessing a range of curriculum outcomes not easily assessed by other methods. It provides a better, more valuable and more in-depth picture of the student and what he/she has achieved than the snapshot obtained in a traditional exam.”

However at the QSA, the portfolio assisted informal formative assessment or self-assessment, as most trainees used the portfolio in systematically assessing their own progress in different non-clinical components of training. The portfolio motivated some SpRs to fix their targets for training, especially in non-clinical components, and then to monitor their overall progress. It may be said that the portfolio fostered some ipsative assessment at the meso level. However, it was not equally effective in promoting ipsative assessment at micro level nor at macro level, as trainees did not engage in detailed in-depth reflection on their isolated performances, nor did they reflect on the suitability of the values of the profession in light of the changing needs of society.

Nonetheless, the effectiveness of PBA depends mainly on the attitudes of the learners towards self-directed learning, since this attitude greatly defines the extent to which trainees engage in self-assessment or ipsative assessment (Yueh, 1997). As discussed in the previous section, most of the SpRs were not sufficiently self-directed as learners and so did not have a disposition for self-assessment.

One reason for this was apparent from the opinion of about 60% of the SpRs, that they already assessed themselves and reflected informally and so did not feel it necessary to use a portfolio. Nevertheless, they also agreed that the portfolio helped them to reflect and self-assess systematically. Moreover, some SpRs had misconceptions which adversely affected their disposition towards self-assessment and reflection. Some SpRs pointed out that the self-assessment engendered by the portfolio was not effective since it revealed only shortcomings and not the techniques/methods to overcome them. In contrast, consultants not only point out the mistakes but also suggest methods to rectify them. Such SpRs may change their perception if they are properly instructed that self-assessment does not replace assessment by consultants, but supports it, as they are complementary to each other. Self-assessment may be more effective in improving behaviour, communication skills, time management and leadership, while assessment by consultants may be more effective in improving clinical knowledge and skills (Feletti, *et al.*, 1994). SpRs may also be informed that, self-cognisance of shortcomings is better than the identification of shortcomings by others, since there is a better chance of learning, as argued by Smith and Tillema (2001:187):

“It may be reasonable to suggest that learning from mistakes has the optimum chance of occurring if there is a collegial and reflective dialogue based on self-reflection on experiences, probably providing the greatest effect when based on a documented collection of evidence of professional competence.”

The ability to receive feedback is also a key component of self-assessment (Butler and Winne, 1995), but SpRs had encountered problems in receiving feedback in the past. Around 30% of

the SpRs felt that they did not receive sincere feedback since superiors did not have enough time to discuss the feedback they gave, while subordinates such as nurses hesitate to give negative feedback. The hierarchical structure of hospitals may therefore be a stumbling block to receiving feedback. Yet some SpRs were quite critical about their responses to receiving feedback and appreciated that they often did not have enough courage to accept true feedback, which works as a barrier to reaping the benefits of any assessment process. These views indicate that the realities of the workplace and the personal fears of the SpRs are hindering the process of feedback. It may be concluded from this research that the portfolio does help in fostering self-assessment, but that on its own it cannot lead to self-assessment to the desired extent. In order to achieve a better orientation of trainees towards the self-assessment, they should be formally trained in the objectives, characteristics and methods of self-assessment.

As far as the use of the portfolio for summative assessment is concerned, nearly all the SpRs wanted to use their portfolio for this purpose in the RITA, but the RITA panels had not accorded it much importance, partly owing to a lack of time but also because the portfolio was not designed for this purpose. Thus effectively it was not used for summative assessment, in spite of the desire of the SpRs that it should be. It is a contentious issue whether the portfolio should be used for formative and summative assessment simultaneously; this issue is discussed in relation to research question no. (vi).

However, the utility of the portfolio for summative assessment should not be ruled out completely. As the review of the portfolios of the SpRs, discussed in section 5.4, shows, efforts put in by the trainee in his/her professional development and his/her attitude towards the different components of training which are difficult to assess by other methods, can be assessed by a using portfolio. Of course, this requires devotion of a certain amount of time by the assessor to each portfolio. However, during appraisal and the RITA at the QSA, very little

time was devoted to the portfolio. In contrast, it helped the assessors at Dundee University to understand the students' commitment to professional development, Davis *et al.* (*ibid.*: 364) concluded that:

"It particularly supports the curriculum outcome relating to aptitude for personal development and the reflective process necessary for this outcome. The real value of portfolio assessment may be that it provides a basis for the judgement of the student's professional fitness to practise."

Thus the present study shows that a portfolio is able to serve different purposes of assessment to different degrees and it also validates the notion that the main benefit for assessment is that it teaches students to assess themselves. Wolf *et al.* (1991:59) also support this view as:

"... if students are going to leave school as competent assessors of their own work, they deserve a sustained opportunity to internalise standards and ways of questioning and improving the quality of their work."

However, as discussed in Chapter 3, reliability and validity have different connotations for summative assessment compared to those for formative assessment (Moss, 1994; Naizer, 1997; Pangaro, 2000). For example, a portfolio required for summative assessment should have a relatively rigid format with well-defined criteria. The same portfolio format cannot therefore be used for summative and formative purposes of assessment. This issue is discussed in relation to research question no. (vi).

6.5 R.Q. V: How Does PBA fit into the Existing System of Learning and Assessment at the QSA?

The authorities at the QSA were under the impression that SpRs did not accord due importance to non-clinical skills, and believed that the introduction of PBA would focus the attention of SpRs on non-clinical skills and thus widen the implementation and coverage of the curriculum. There were two main sub-contexts for PBA: namely, the 'learning of non-clinical skills' and the 'existing assessment system'.

Learning of Non-Clinical Skills and PBA

Trainees generally had positive attitudes towards non-clinical activities and nearly all of them pointed out that the portfolio had focused their attention on these activities. They also said that the portfolio helped them in planning, monitoring and assessing these activities. Yet the content analysis of the portfolios indicated that the SpRs had engaged minimally in non-clinical activities, while the second interviews indicated that they faced practical problems in pursuing most of these activities. For example, 98% of the SpRs agreed that teaching juniors helped develop a better understanding of concepts and better communication skills, and that consultants should prefer to teach even at the cost of clinical activities since teaching is needed for the growth of the profession.

Most SpRs also had opportunities to teach juniors. However, with regard to other activities, such as medical audits, only 62% believed that they resulted in an improvement in practice, and 76% that it helped in maintaining standards. Yet 94% of them expressed a desire to take up medical audit since they believed that it helped them in understanding the nuances of the practice. One important reason for less effective audits was that the rotation system meant they did not get sufficient time to finish a detailed audit at any location.

Similarly, the SpRs generally valued research for its findings and also appreciated that experience of conducting research helped them to judge the reliability of the findings of other research. However, they were equally divided about whether the experience of conducting research helped them learn systematically from day-to-day experiences. This issue was an important one, since PBA is also aimed at turning SpRs into insider practitioner researchers (Fish and Coles, 1998). Yet SpRs engaged in very little research and the reason cited for this situation was that it required more time and special interest. Reading journals was recognised as a necessary activity, but there was a wide gap between what was said and what was actually

done. Two main reasons were indicated for the small amount of reading: lack of time and scarcity of articles having direct relevance to routine practice. Better use of the portfolio could help to reduce the scarcity of such articles, as practice in reflecting on experiences and writing down those reflections can result in insider practitioner research, leading to the publication of articles relevant to day-to-day practice (Fish and Coles, *ibid.*; Gupta *et al.*, 2001). There were other problems specific to publishing: the majority of the SpRs indicated that they had ideas but they could not publish them since this required dedication, time management and special skills such as academic writing. They wanted guidance in developing academic writing skills. Another important non-clinical activity was assisting in managing hospitals, which the SpRs generally liked, although the opportunities available to them were restricted to preparing the duty rota.

It can therefore be concluded that the portfolio was able to attract the SpRs' attention to non-clinical activities and helped them in planning and reflecting on these, and thus helped to widen the curriculum by focusing attention on those areas of training which had hitherto been neglected. However, on its own it was unable to increase these activities substantially. There were many factors responsible for this and some of them were specific to the type of non-clinical activity, as discussed above. There were also common factors, such as lack of time and motivation on the part of the SpRs, lack of planning and guidance at school level, lack of opportunities for carrying out some of the activities and the system of rotational attachments at different hospitals. In order to enhance the practice of non-clinical activities, a multifaceted approach may be required to reduce or eliminate the influence of these factors and only then would it be possible to realise the full potential of PBA.

Existing Assessment System and PBA

The analysis of responses to questionnaire (see Appendix no. vii and section 5.1) regarding the perceptions of trainees concerning the existing assessment system indicates that the existing system of RITA and appraisal was generally considered effective and efficient by the trainees. However, this analysis revealed some of the problems and issues that affected the compatibility of PBA with the existing system.

The majority of the SpRs thought that clinical competencies were sufficiently assessed, but that non-clinical competencies and competencies related to personality were under-assessed. Thus there was scope for some additional assessment with a focus on non-clinical competencies and personality-related competencies. The portfolio aimed to do this and so was well received by the SpRs conceptually as well as for its scope.

SpRs considered consultants as the best group to assess them, other groups being self, peers, patients and supporting staff. They valued the feedback of consultants more than the OSCE and paper-pencil tests for improving clinical competencies. Yet there was a general feeling that consultants neither had sufficient time to assess them nor took sufficient interest in assessment. This resulted in most feedback being general in nature, provided after a considerable delay and not indicating possible causes of poor performance or remedial measures. Trainees also wanted consultants to give formal reports around the middle of their hospital attachment and to discuss these with them, so that they had an opportunity to improve before they finished the attachment. This showed that the SpRs did not receive appropriate feedback from consultants; and thus it can be inferred that the assessment by the most preferred group was also not in the desired state.

This study did not attempt to evaluate the reasons for this situation and separate research is needed to identify the reasons for this and suggest remedial measures. However, the main reason seems to be a shortage of time on the part of consultants. Another reason was the nature

of the duties of anaesthetic SpRs': they usually had to work in different teams and so a consultant authorised formally to assess a SpR and give feedback might not have had enough exposure to that SpR's work.

As discussed above, the SpRs' first choice for assessing them was consultants and after them, SpRs considered themselves as the second best choice. Since the SpRs were dissatisfied with the feedback received from consultants, this enhanced the probability of the portfolio being well received since it provided an opportunity for self-assessment or assessment by their second preference. Moreover, the trainees pointed out that consultants did not discuss their performance reports with them. This indicates the desire of trainees to have more involvement in their own assessment. Interviews revealed that, in theory, the SpRs liked the portfolio because of the opportunity it offered for self-assessment, even though they encountered some problems when they attempted it, as discussed above.

The SpRs generally felt that appraisal and the RITA served their purpose satisfactorily, as they assessed their overall performance fairly well and ensured that only those trainees who had acquired at least a minimum acceptable performance level were promoted. However, the RITA only served as a summative assessment and its contribution to formative assessment was minimal. At the same time, appraisal could not assess the isolated clinical performances of trainees and they did not receive specific qualitative comments on their clinical performances. In other words, formative assessment was not effective. Trainees also felt that follow-up of appraisal and the RITA was inadequate and there were no arrangements to rectify shortcomings identified in either the RITA or the appraisal. Thus, there existed a situation where:

- (a) Trainees were not fully satisfied with the existing formative assessment system and wanted more detailed assessment in order to improve the quality of their work.
- (b) Consultants did not have enough time to assess and provide feedback in detail.

(c) Trainees wanted to have some say in their own assessment.

In this situation, the portfolio provided an opportunity for self-assessment and that, too, in detail. And so it was received well. Yet, as discussed elsewhere in this chapter, portfolio or self-assessment on its own has limitations, and a certain amount of guidance by consultants could overcome these and make it more effective. It is proposed therefore that every SpR should be attached to one consultant of his/her choice in order to be able to interact without fear and to obtain guidance whenever they need it. It is assumed that in this arrangement SpRs would assess themselves and thus save the consultants' time, at the same time, a trusted mentor would be available to them, for guidance and help as and when required. Woessner *et al.* (1998) report that there is evidence that students value highly the involvement of a mentor who gives them overall guidance and feedback. There is a need for research to evaluate the effectiveness of this arrangement with reference to PBA.

One important method of assessment at the QSA was logbooks. Nearly all the SpRs felt that the logbook and the portfolio were complementary, since the logbook focused on clinical skills while the portfolio focused on non-clinical skills.

The majority of the SpRs appreciated the usefulness of the portfolio for appraisal but they pointed out that consultants did not accord it due importance. There were three reasons for this situation:

(a) Consultants did not have enough time to examine the portfolio in detail during appraisal.

(b) There was considerable repetition in information provided by appraisal forms and the portfolio.

(c) The majority of consultants might not be aware of the importance of the portfolio in relation to appraisal since no orientation programme was organised for them.

Harris and Curran (1998) also identified two main problems with the implementation of portfolios: namely, a lack of adequate training and support, and a lack of time to prepare

portfolios (for students) and to review them (for teachers). Imel (1993) suggested that teachers and trainers also need training in assessing portfolios and providing feedback. Wolf *et al.* (1991:58) argue:

“If students benefit from being included rather than excluded from assessment, so do teachers, Although most teachers receive little or no training in assessment....”

It can therefore be concluded that effective implementation of portfolios requires adequate time and training for consultants as well as trainees. The majority of the SpRs wanted the RITA to attach more importance to the portfolio. However, this contradicted the purpose for which the portfolio was intended, since the RITA is a summative type of assessment mainly used for certification, while the aim of the portfolio is to assist in self-assessment for professional development. However, the SpRs are not wholly to blame for this attitude, as they were asked to use their portfolios in the RITA. A key question is therefore whether a portfolio can be used for summative and formative assessments simultaneously. This is discussed in relation to research question no. vi.

However, it may be inferred from the data that, generally speaking, the portfolio fitted in well with the existing learning and assessment system, and two things may be said conclusively. First, there was a felt need to have more assessment in the non-clinical component of training and more involvement of trainees in their assessment: the portfolio fulfilled both of these requirements. Second, there was no conflict between existing assessment methods and the portfolio; it was considered complementary to the logbook and consultants' reports. However, the effectiveness of the portfolio and the need for more time and guidance was a point of debate, as discussed elsewhere in this chapter.

Socio-Cultural Context of QSA and its effect on PBA

Due to the limitation of time and access as described in chapter no. 4 on methodology, I could not explore in-depth the socio-cultural issues. Yet, further analysis of data from the study reveals some aspects of the socio-cultural context and its effect on the implementation of the portfolio. As far the relationship between different stakeholders is concerned, it can be said that the communication about the portfolio between Director of School, and consultants was minimal, the same is true for communication about the portfolio between consultants and SpRs. However, there existed some communication between SpRs and the Director. This shows that consultants were not involved in this initiative to the extent they should have been. There may be many reasons for this, but it seems that it was the initiative of the Director who, apart from being a consultant anaesthetist, was also interested in educational aspects more than other consultants; this is indicated by his additional qualification of Master in Medical Education, which is a rare qualification for consultants to pursue.

However, the question remains as to why the Director had not involved other consultants to the significant extent. There seem to be two main reasons for this. First, the Director was one of the consultants and the post of Director of QSA was a notional post, as a Director he had additional responsibility of co-ordinating the training and assessment activities of the SpRs. Thus, although he was Director, he did not have any administrative control over consultants who were his colleagues. In other words he was not director in a sense that Universities have directors or heads of different schools. The second reason, as the data indicate, consultants were already very busy with their clinical and other administrative activities and for them sparing time for normal teaching and assessment activities was difficult, so the director could have not asked them to spare additional time for training about portfolio and for meetings to

monitor its implementation. Thus, the busyness of consultants coupled with the fact that Director did not have any power over them seems to be one of the main causes of their less than desired involvement. The Bourdieuan concepts of habitus and field when applied to consultants raises questions about possible rewards for consultants in spending a lot of time in going through the portfolios and on the reflections of SpRs on their experiences. Analysis of data obtained from the interviews of the SpRs indicates that, for consultants, the rewards of engaging in clinical work far outweigh the rewards of engaging with the SpRs. There is therefore a need for further research about the consultants' disposition in relation to teaching and assessment activities in general and portfolio in particular.

With hindsight, I feel that I should have interviewed the consultants on this issue. The reason for not doing so was mainly that at the design stage of the research I felt that since the focus of study was SpRs' perception of the portfolio and the effects of the process of preparing the portfolio on their attitudes towards learning and self-assessment, there was no need to interview consultants. While at the latter stage of the research when I felt that consultants should also be interviewed, I was overwhelmed by the data received from the SpRs and due to limitation of time and space (limits of words) prescribed for the Ph.D. research, I have to limit research only to SpRs' views.

Yet, new light can be shed on this aspect of the study by the work of Illeris (2003) who argues that, apart from the cognitive dimension of knowledge and skill and the emotional dimension of feelings and motivation, learning is also influenced by the social dimension of communication and cooperation. The cognitive and emotional dimensions are related with an internal psychological process of acquisition and elaboration in which the new impulses of knowledge, skills and attitudes are connected with the prior learning while the social

dimension brings in external interaction such as participation, communication and co-operation. In case of SpRs at QSA, it appears that they were also developing along the social dimensions since they always worked in teams where they had the opportunity to communicate and cooperate. But there were two main factors that inhibited their development along the social dimension or effective learning from working in the teams. First, the fact that the team in which they work changed very frequently mainly due to frequent rotation of SpRs within the hospital and their six monthly rotations between the hospitals. And secondly the nature of the SpRs' work was such that they rarely got the opportunity to work with their peers; instead, they had to work with surgeons and nurses, who were considered senior and junior in status to them and hence a power relationship between SpRs and other team members existed.

These factors are confirmed by Hodkinson and Hodkinson (2004) in their comparative study of two teachers working in different departments of a secondary school where the culture of the department, the nature of the subject to be taught, the type of student they received and even sitting arrangement in the staff room all affected their attitudes and behaviours greatly. They noticed that, apart from individual biographies, the social context of the department and the wider context of school and the context at national level all contribute to the teachers' habitus, namely the interaction between these factors and teachers' dispositions, experiences and behaviours. The same is true for the case of SpRs at QSA: at individual level they were more career-minded and ambitious and so always preferred to remain busy in the activities which might show their achievements rather than in social activities, which did not seem to have any direct benefit for them. Thus they showed a strategic orientation towards their training. The nature of their job was such that they had to work in isolation, and there were few

opportunities to meet peers and share experiences. At the school level also, there was few opportunity to meet in groups, nor was there any common place like a staff room, where they could have meet colleagues for a cup of coffee.

Further barriers to these social dimensions of learning were added by the way that the concept of School of Anaesthesia was as notional as the post of its Director, since there is no building or part of building as such, which can be termed as QSA. The only additional infrastructure in the name of QSA was an additional room allocated to the Director, from where his secretary assisted him in planning the training (working in different specialities and hospitals) and assessment activities and keeping their record. Thus SpRs were primarily employees of the NHS and training and assessment were secondary activities. The national policies of NHS and the public demands on NHS were such that the SpRs were already heavily loaded so that the habitus and field of SpRs in general were not supportive for social, collaborative working or the type of community of practice imagined by Lave and Wenger (1991). Thus Hodgkinson and Hodkinsin (*ibid.*) argue that there is a need to emphasise Bourdieu's ideas of field, social-cultural capital and habitus along with the ideas of Lave and Wenger to make the ideas of the latter more realistic. They conclude:

"...learning involves the complex and often reflexive interrelationships between community of practice, individual disposition to learning, inequalities position and capital, and wider influences upon, and attributes of the field. Our research supports the view that work place learning cannot be understood through the abstraction of any one of these elements at the cost of excluding the rest." Hodgkinson and Hodkinsin (2004:180)

Vanderstraeten (2004) argues that organisational structures of the educational settings such as schools are designed to facilitate the process of learning but they may also inhibit the process and cites the example of division of school time in distinct lesson periods:

“A lesson period for example, typically ends when the bell has rung and not when the students’ attention slackens or when the teacher’s efforts have been successful.”
Vanderstraeten (2004:49)

The same problem was faced by the SpRs in their system of attachments for six months in different hospitals: by the time they learned the technicalities of the speciality and got acquainted with the staff and surgeons of the hospital and tried to advance their learning they got transferred. This system had also affected adversely the audit and research projects undertaken by the SpRs, since they could not take any project which might last more than six months.

Further light on these barriers to learning is shed by Fuller and Unwin (2003) who point out that, institutional arrangements may prove expansive or restrictive for situated and participative learning. They propose the idea of an expansive/restrictive continuum and suggest that most of the institutional arrangements may be located on this continuum. They further argue that Lave and Wenger’s metaphor of ‘learning as participation’ may work well for traditional craft-based activities but not so well in case of complex commercial/public service, organisational settings. The organisational structure of NHS is also complex and if institutional arrangements at QSA are to be located on the expansive/restrictive continuum, the QSA finds its place somewhere at the mid point of this continuum. This indicates the need for reforms in institutional arrangements to foster expansive practices to create opportunities for deep learning.

These socio-cultural factors have extensively affected the way portfolio has been implemented at QSA and its effectiveness. This implies that any findings that have emerged from this research should be seen in relation to the socio-cultural context of the QSA. Yet, there is need for further studies on assessment to look in more details about the socio-cultural context of the

educational setting for a proper understanding of the effects of assessment regimes on students' assessment careers and their mutual interaction (Ecclestone and Pryor, 2003)

6.6 R.Q. VI: How Can the Existing System of PBA be Further Improved?

This research shows that PBA may be further improved by taking two main precautions. First, the portfolio should not be treated as an isolated assessment activity; it should also be considered as a learning activity and an integral part of the curriculum. Second, the same portfolio should not be used simultaneously for summative assessment and self-assessment. These suggestions and the findings on which they are based are discussed below:

(a) It should be Treated as Assessment as well as a Learning Activity

Although a portfolio assists in assessment quite intensively, this research shows that, in the context of postgraduate medical education, a portfolio is not able to govern the whole process of assessment. The claim that a portfolio becomes so central to assessment that it can be termed 'portfolio-based assessment' is therefore untenable. This research shows that a portfolio is better only in a particular aspect of assessment, while other assessment methods are also needed to assess overall performance. Therefore, assessment cannot be based solely on portfolios; assessment can only be supported by them. Hence the phrase 'portfolio-based assessment' is misleading: it would be more appropriate to use the phrase 'portfolio-supported assessment' instead.

In most of the literature, the portfolio is mainly associated with assessment and so the phrase 'portfolio-based assessment' is commonly used. However, a key understanding developed by this research is that the process of preparing the portfolio directly supports learning, without the formal cycle of assessment, namely examination, evaluation and feedback by teachers. This

is because it works in such a way that learning and assessment intermingle and take place simultaneously, so that it is very difficult to differentiate between the two. Wolf *et al.*, (1991:57) argue that:

“Portfolio-based assessment can provide a context where students can learn to regard assessment as an occasion for learning.”

Smith and Tillema (2001:183) also noticed in their recent study that:

“During its construction, the portfolio already implicitly delivers feedback about the process of learning, thus enabling a closer match between the learning intentions and the actual progress made in competence development.”

Hence the phrase ‘portfolio-supported learning and assessment’ (PSLA) conveys the role of the portfolio in teaching and learning processes more appropriately than the phrase ‘portfolio-based assessment’ (PBA). Similarly, in this research the phrase PBA was also used initially, but by the time of its completion, I appreciated that the phrase PSLA would be more accurate.

Ecclestone (2000:154) points out that:

“Other assessment practices which develop critical autonomy are more familiar to teachers as teaching methods, such as asking questions to increase understanding, or to diagnose barriers to understanding, creating classroom climates where students feel able to debate, challenge and question, or to ask curriculum-related questions of each other and teachers.”

This statement needs more discussion and debate, because it suggests an important point and also raises an important question, which the author may or may not have intended. The statement suggests that the chances of developing critical autonomy are more likely if the activity intended for this purpose is integrated with the teaching-learning process. In other words, if an activity is carried out in isolation and bolted onto the teaching-learning process, it will not succeed in creating the desired effect. Incidentally, most assessment activities are carried out in such a way that they remain isolated from the main teaching-learning process. The important question raised by the above statement is whether an activity, if it is termed as a ‘teaching method’, remains free from the distortions which the term ‘assessment’ brings with.

Haertel (1990) also argues that if portfolios are used as a learning tool, rather than as an assessment tool, they will provide an insight into the level of performance with reference to the goals set by the individual him/herself. This insight works as a kind of feedback which is owned and accepted more by the individual compared to other assessment methods.

However, Boud (1997:36) suggests that self-assessment should neither be viewed solely as an assessment activity nor solely as a learning activity: rather, it should be seen as a combination of the two:

“If self-assessment is (mistakenly) seen as simply an addition to the repertoire of assessment practices it is in danger of being judged in terms of these conservative traditions of assessment. Its merits in contributing to learning may therefore be neglected. If it is seen as a learning activity alone, the inevitable connection with the assessment may be ignored and concurrent assessment practices may undermine its development. There is no simple solution to this. Self-assessment is both an assessment practice and a teaching and learning activity. It inhabits an uneasy territory between the two.it is desirable for self-assessment to take its place in a broader conception of assessment without it being viewed in terms of the conventions of a previous generation.”

Similarly, in an undergraduate health education programme at Illinois State University, portfolios were initially used to assist assessment, but there was soon a realisation that it would be more effective in helping students to identify relationships among coursework, skill development, and other obligations of the entry-level health educator (Waishwell *et al.*, 1996). Thus, on the basis of this study and the relevant literature, it may be conclusively suggested that a portfolio should not be treated merely as an assessment activity, but that it should also be considered as a learning activity, with ‘Portfolio-Supported Learning and Assessment’ (PSLA) being a more appropriate term than ‘Portfolio- Based Assessment’ (PBA).

(b) A portfolio should not be Used for Summative Assessment and Self-Assessment Simultaneously.

Boud (1997) suggested that assessment activities should be monitored for their consequences, as there may be desirable ones, such as hard work for the preparation of assessment leading to achievement, and undesirable ones, such as superficial learning, loss of pleasure in learning and the fostering of an attitude of learning based on external motivation. Assessment activities such as portfolio-based assessment can also create undesirable consequences. Callahan (2001:178) argues that:

“...because portfolio assessment may involve writing collected over several months or years, test awareness and test preparation have become an ever-present factor in many classrooms, blurring the line between daily activities and external testing.....Needless to say, this new teaching environment had created unfamiliar decision making situations for teachers.”

She elaborated by pointing out that assessment of a portfolio for summative purposes was a complex process for most teachers since the amount of work reflected in the portfolio depended on many factors, such as opportunities provided by the school/college to students and the help extended by teachers in the completion of tasks and even in the preparation of portfolios. This created an ethical dilemma for teachers and they discovered that they needed to redefine ethical professional behaviour in the light of the new environment created by the portfolio-based summative assessment.

In the light of these arguments, it might be better if the portfolio were detached from summative assessment, especially if there are many other assessment methods already available for summative purposes as compared to the scarcity of methods for self-assessment. Moreover, as this research shows, portfolio preparation is a continuous activity which trainees used mainly for planning and monitoring their progress during training. It could therefore intermingle more with the learning process than with summative assessment processes such as the RITA and formal formative assessment such as appraisal. Other methods of assessment can

be comfortably used simultaneously to support both formative and summative assessments. However, if PSLA is used simultaneously for both purposes, then it creates a conflict of purpose and interest. PSLA is fundamentally different from other conventional methods of assessment, as no other method of assessment has so much focus on self-assessment as that given by a portfolio.

Moreover, the study also shows that simultaneous use of portfolios for self-assessment and summative assessment hindered the process of self-assessment. Personal fears and social fears meant the trainees engaged in less reflection because they thought that the portfolio was ultimately going to be used for summative assessment. Similarly, sections which were not considered useful to showcasing achievement for summative purposes were left blank by nearly all the SpRs.

Therefore, if the portfolio has to be used for both purposes, then trainees should be asked to prepare separate portfolios for different purposes. Smith and Tillema (2001) suggested three different types of portfolios based on their purpose: the 'dossier portfolio', 'course-related learning portfolio' and 'reflective learning portfolio'. Delandshree and Petrovsky (1998) used 'dossier portfolios' for collecting and evaluating the evidence according to specified external standards and these are also used along with work samples for achievement evaluation and summative assessment of performance. 'Dossier portfolios' are also known as 'credential portfolios' or 'showcase portfolios' (Synder *et al.*, 1998).

According to Smith (1998), a 'reflective learning portfolio' is a document containing a record of the cyclic process of continuous professional growth during work experience, normally over a long period of time such as a few years. Hamilton (1998) points out that this type of portfolio may resemble a biography since its preparation is directed by personal goals and learning needs and it helps to integrate evolving thoughts and actions in and alongside professional practice. The Director of the QSA also wanted trainees to use the portfolio as a 'reflective learning portfolio', while the trainees tried to use it as a 'dossier portfolio'. However, as

discussed in sections 5.3, 5.4 and 5.5, the trainees and teachers at the QSA used the portfolio more as a 'course-related learning portfolio'. Winsor *et al.* (1999) argue that a 'course-related learning portfolio' helps to inform individuals about how to redirect and regulate their programme-related development in competence. They further elaborated that collecting targeted, and often pre-specified, documentation in portfolios facilitates meaningful assessment by tutors and learners, concerning both progress in training and deciding a future course of action. At the QSA, portfolios were mainly used for recording evidence of progress in different components of training and in monitoring and redirecting this progress. The reason for this use may be ascribed to the format of the portfolio and the context of assessment at the QSA, where it was not possible to use the portfolio as a 'reflective learning portfolio', despite the wishes of the Director, nor as a 'dossier portfolio' as the trainees wanted. This created tension, resulting in less and ineffective use of it. Similarly, Borko *et al.* (1997) also noticed in the teacher education programme at the University of Colorado that student teachers were generally more concerned with using their portfolios to obtain employment, while teacher educators were more interested in using them to promote professional development and for assessment purposes.

It may be concluded that three different purposes of the portfolio should be made very clear to both trainers and trainees. These purposes are 'summative assessment', as in the dossier portfolio, 'in- depth reflection on professional practice', as in the reflective learning portfolio, and 'formative reflection on progress in training', as in the course-related portfolio. Those wishing to introduce portfolios need to decide which purpose a portfolio will serve. Although, theoretically, a portfolio can be used simultaneously for all three purposes, this research has shown that trying to serve all three purposes simultaneously may prove counterproductive and so it should be used for only one purpose at a time. Yet different programmes adopt different approaches: for instance, in the teacher education programme at Wichita State University, all three functions of the portfolio have been combined in one (Carroll *et al.*, 1996). In contrast,

the teacher education programme at the University of California Santa Barbara, requires separate portfolios for different purposes (Snyder *et al.*, 1998).

Nevertheless, a portfolio can be used simultaneously for course-related learning and reflective learning, since both have the purpose of learning: such a portfolio may simply be called a 'learning portfolio' (Wolf and Dietz, 1998). The difference between these two types is only in the aim of reflection: the first type addresses overall progress in training and the second type looks at professional practice. Tension is only generated when either of these two purposes is combined with the third purpose: namely, summative assessment. In other words, 'learning portfolios' and 'dossier portfolios' should be kept separate, although, a dossier portfolio may be created with the help of learning portfolios whenever a trainee wants to showcase his/her achievements. Yet the converse of this, that is, engendering self-assessment to improve learning by creating learning portfolios from dossier portfolios, is not possible.

There is another viewpoint concerning the use of portfolios for summative assessment purposes. In their study on the use of the portfolio for summatively assessing undergraduate medical students, Davis *et al.* (2001:363) suggest that:

"Examiners see portfolio assessment as a robust and successful method of assessing the learning outcomes. Portfolio assessment has potential for assessing a range of outcomes not easily assessed by other methods: for example, attitudes, personal attributes, such as diligence in building the portfolio and aptitude for self-development."

In the present study also, a content analysis of the portfolios indicated the aptitude for and attitude towards self-directed learning possessed by the SpRs. Thus it can be suggested that if a portfolio is to be used for summative assessment, its use should be restricted to the assessment of attitude for self-development for which it is more suitable. Other methods should be used for the summative assessment of knowledge and skills.

The understanding developed by this study also resonates with the views of Smith and Tillema (2001), that the use of a portfolio depends principally on two dimensions. Firstly, on the condition of its use, whether mandatory or voluntary, and secondly, on its purpose, namely, self-development or certification. Based on these two dimensions, Smith and Tillema (*ibid.*) plotted the use of a portfolio on two axes and suggested that the four quadrants of this plot represent four different types of use: self-assessment, self-appraisal, self-review and self-evaluation (see Fig 6.1). There is a very subtle difference between these four types of use and this classification is based on the taxonomy of internal evaluation proposed by Powell (2000) and adopted by Smith and Tillema (*ibid.*). These four types are defined below:

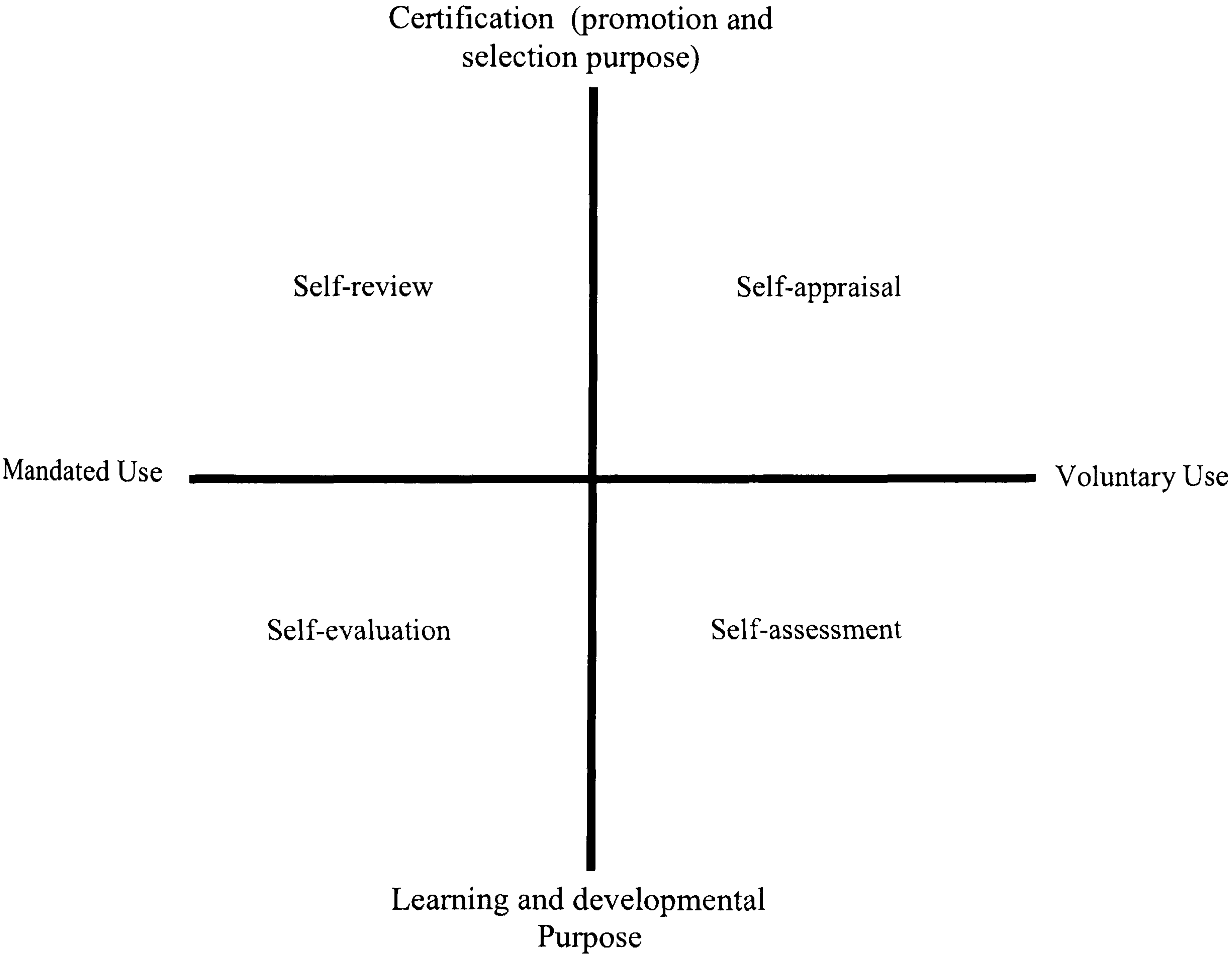


Fig 6.1: Type of assessment based on purpose and mode of use of portfolio

Self-Review: This is outcome-oriented, summative and helps an individual to understand his/her strengths and weaknesses. It is exercised when the portfolio is mandated and is used for summative assessment or for certification (top left quadrant in the Fig 6.1). Although the use of the portfolio was quasi-mandated at the QSA, it was not intended to be used for summative assessment. As discussed in section 5.3, most of the SpRs saw it as a dynamic CV and these SpRs tried to showcase their achievements as in a dossier portfolio and presented it during the RITA, thereby using the portfolio as a CV engendered self-review. However, this deprived them of an opportunity to describe and reflect on their experiences in which they had not been very successful. In contrast to the situation at the QSA, Smith and Tillema (2001:193) reported that:

“One of the interviewees said that the documentation of less successful experiences is, perhaps, the most useful documentation, because a great deal of learning derives from repeated systematic reflection on experiences that he would avoid presenting in a regular CV as one of his accomplishments.”

Self-Evaluation: This is also mainly outcome-oriented and takes place when the portfolio is intended for learning and professional development purposes but implemented in a mandatory fashion (bottom left quadrant in Fig 6.1). It differs from self-review in the sense that it is more formative in nature since this portfolio is prepared on a regular basis to provide feedback for improvements and not at the end of the training, as in the case of a summative purpose. A similar situation was intended at the QSA by the management. To a large extent, trainees used it formatively to monitor the overall progress of their training and to make timely decisions about corrective actions. It may be concluded that it was able to generate self-evaluation in a general way. But its mandatory use hindered the real empowerment of the trainees, which is an important condition for self-assessment. To use a phrase coined by Ecclestone (1999), trainees

may take it as ‘ensnaring’ rather than ‘empowering’. This was evident from the views of some of the SpRs who received it with suspicion and perceived it as one more tool to exercise control over them.

Self-Assessment: This takes place when the portfolio is intended to be used for learning in a voluntary fashion (bottom right quadrant of Fig. 6.1). In this case, full ownership of the portfolio rests with the trainees, since they themselves have a choice about content. Voluntary preparation of a portfolio for learning answers the question ‘what I can do to improve my professional competence?’ Thus, self-assessment is process-oriented, in contrast to self-evaluation which is outcome-oriented. In one way, self-assessment leads to a dynamic change, which reflects the various stages of professional development. There was negligible evidence of such self-assessment in the portfolios prepared at the QSA. This lack of self-assessment may have been mainly the result of its mandatory use. The Director of School wished the portfolio to be prepared on a voluntary basis, but it was necessary to make it mandatory to ensure that every SpR prepared it. A dilemma for trainers is thus whether to make the portfolio voluntary or mandatory in an educational setting (Gupta and Greaves, 2003). Trainees who are already self-directed and internally-motivated learners may prepare a portfolio even if it is voluntary, but the purpose of introducing a portfolio in any educational institution is to develop a habit of self-assessment in learners who are less self-directed and less internally-motivated. The Introduction of a portfolio on a voluntary basis is dependent on the continuing motivation of trainees to prepare it for self-assessment.

A key question brought up by this research is, then, how to motivate trainees to use portfolios without making them mandatory. This may require extensive efforts in terms of arranging orientation programmes for trainees on the importance of portfolio preparation, and guidance and counseling on a one-to-one basis.

Self-Appraisal: This takes place during the voluntary presentation of achievements for external assessment (top right corner of Fig. 6.1) for certification or selection purposes. It may be defined as a voluntary process of selecting evidence of professional competence to present for external evaluation. A considerable number of the SpRs wanted to use their portfolios in this way by also using it as a CV for interviews for the post of consultant.

It may be concluded from the above discussions that the portfolio at the QSA was used mainly for self-evaluation, followed by an attempt by a sizeable majority of the trainees to use it for self-review for the RITA. A large number of SpRs also wished to use it as a CV in interviews for consultants' jobs, which is a kind of self-appraisal. However, using it for self-assessment, which is what was most aspired for by the Director of School, was the least common.

Finally it can be concluded that in the context of postgraduate medical education, PSLA is more successful in the self-assessment of overall progress in training than of single performances. It engendered a negligible amount of reflection about the practices of the profession in relation to the changing needs of society (critical inquiry). In a way, the portfolio was less successful in engendering reflection either at macro level (profession as a whole) or at micro level (single performance), but quite successful in fostering it at meso level (on progress of training in different areas).

Yet this research indicates that many of the trainees were not of themselves willing to prepare the portfolio and they prepared it only because it was being used for summative assessment. This raises a key question about how many trainees would prepare it for self- assessment if they were not supposed to show it to consultants during summative assessment. At the same time, this research shows that some trainees who were reluctant to prepare the portfolio initially, came to value it after some experience of preparing it because they were compelled to do so. Thus it can be assumed that, initially, a portfolio can be mandatory, but that later on,

trainees may start preparing and using it voluntarily. However, there is a contradiction in this assumption, since a portfolio is introduced to foster autonomy, an aim that is undermined if its preparation is compulsory. Little (1975, cited by Boud, 1995) argues that assumptions that trainees can be made autonomous by force is as illusionary as the assumption that some leaders can lead the common people to true freedom. He points out that:

“There is no escape from the paradox of leadership - the requirement that men should be led to freedom, that students be taught the autonomous style.” (Little, 1975:26 cited by Boud, 1995:24)

The spirit of the above argument is that ‘means decides the ends; therefore the nature of means should be in conformity with the nature of ends’ and hence if the common people want freedom then they themselves should struggle for it. If some leader leads them to freedom, then the people have not gained freedom in a true sense since they have become followers of that leader. However, Little also agrees that there is no escape from this paradox. Similarly, this research indicates that something external is needed to motivate trainees to prepare the portfolio, and that preparing it does lead to a possibility that they will become more self-directed and intrinsically motivated learners. However, more studies are necessary to confirm this assumption conclusively. It seems that, at present, there is no method available to transform a non-autonomous trainee to autonomous one, except initially support them individually and then slowly expose them to solving problems on their own. In the beginning, problems may be simple and gradually they can become more complex and difficult. Newton (2000, cited by Ecclestone, 2002) also agrees with a gradual shift from external-regulation (dependence) to self-regulation (autonomy) as below:

“Paradoxically, facility in self-regulation (of learning) can develop from external regulation. Success is when external regulation is removed and self-regulation stands alone.” (Newton, 2000:166, cited by Ecclestone, 2002:37)

Mokhtari *et al.* (1996) also found that exposure to and use of portfolios in teacher education programmes had positively influenced pre-service teachers' beliefs and attitudes towards using portfolios. They described their experience as follows:

"The authentic, ongoing, collaborative, and multidimensional nature of portfolios enables both students and teachers to reflect on student learning and growth throughout a program,..... Portfolio assessment also seems to help pre-service teacher education majors become self-directed and reflective practitioners."

Similar findings are reported by Ford and Ohlhausen (1991), where participation in a graduate course involving portfolio assessment resulted in new attitudes, beliefs, and classroom practices amongst students.

It may be a necessary strategy to make a portfolio mandatory initially in order to force students to prepare and appreciate it and then to make it voluntary after students realise its value. Nevertheless, using it for summative assessment purposes should be avoided. Ten years ago, the literature began to caution against a tendency to use it to serve summative assessment. Maeroff (1991) argues that attempts to use authentic or alternative assessment for summative purposes would lead to their standardisation which, in turn, would dilute or diminish their strengths. Mokhtari *et al.* (1996) draw on Pearson and Stallman (1993) and suggest that a portfolio should not be used for summative purposes, and traditional assessment can co-exist with it for wide-scale summative assessment reliably and efficiently. This co-existence is possible since they serve two different purposes of assessment: summative and formative.

6.7 Recommendations

The following recommendations arise from the findings of this research for improving design and implementation of portfolio, and to improve the existing assessment system and enhance trainees participation in non-clinical activities:

Effectiveness of Portfolio for Learning and Assessment

- (i) The portfolio should be considered mainly as a tool for learning and not only as an assessment tool. It should therefore be treated as a part of the curriculum and exclusive time for its preparation may be earmarked. This will integrate the portfolio with the teaching-learning process and bring it into mainstream teaching and learning, rather than leaving it as an isolated activity, as was the case at the QSA.
- (ii) Use of the portfolio for summative assessment should be avoided, but if it is to be used summatively, trainees should be asked to maintain it mainly for self-assessment. And for summative assessment, such as the RITA, trainees can prepare another portfolio by selecting relevant parts from the main portfolio as and when required. This arrangement could provide an opportunity for free and frank reflections in the main portfolio, with power for trainees to decide which parts of reflection to make public and which not.

Implementation of PSLA

- (i) Before introducing the portfolio, trainees should be introduced to the different aims of assessment and methods to achieve those aims. The importance of self-assessment and the role of the portfolio in fostering it should also be elaborated in detail. This is important since, so far, most trainees have neither been trained in issues relating to assessment nor have they engaged in any formal self-assessment.
- (ii) Similarly, consultants or tutors should also be oriented towards assessment in general, and self-assessment and the portfolio in particular. They also need to be trained in providing

feedback on self-assessment in such a manner that trainees can develop trust and faith in them and can openly reveal their reflections to consultants. Durguerian *et al.* (2000) also reported the need to train consultants so that they can foster self-assessment in trainees.

- (iii) When introducing portfolios to trainees, they should be asked initially to prepare the portfolios for activities they have performed over short time periods, such as the previous month. It is assumed that this will give them some practice, build their confidence and clear up any misconceptions about the portfolio. It may be better if trainees practised portfolio preparation in a workshop-type situation, where they can obtain help from their peers and tutors in case of any doubt.
- (iv) Each SpR should be attached to one consultant of his/her choice whom he/she can approach for guidance in self-assessment, and whenever there is a need for help in understanding some concept or plan, or to arrange components of clinical or non-clinical training. However, the choice of when to ask for guidance, and about what, should rest entirely with the trainees.
- (v) To realise the full potential of the portfolio, especially of those sections relating to interpersonal skills, it is necessary to develop writing abilities by providing time for writing about a variety of experiences.
- (vi) Sharing portfolios among peers should be encouraged since dialogue and communication about experiences may bring awareness about grey areas in practice and highlight a further need to reflect and learn. Moreover, sharing problems and issues not only results in an understanding of these issues by individuals but also results in the development of 'group inquiry' among practitioners (Addison and Van Deweghe, 1999)
- (vii) To create a community of insider practitioner researchers at the QSA, it is necessary to develop a culture of trust where portfolios can be shared without any fear or prejudices among peers and between trainees and their supervisors. This is necessary because for a

portfolio to be authentic and communicative, people also need to take into account the opinions of others on their reflections (Gipps, 1994).

Portfolio Format

- (i) The focus of trainees is different in different years of training. Three different formats of portfolio might be used, one for years 1 and 2 of the training, another for years 3 and 4 and a third for the final year. This would make the process of preparation more convenient and would also have a beneficial psychological effect on trainees, as parts of the portfolio would appear less complex and less daunting than the present format.
- (ii) Portfolios might be introduced at SHO level rather than at SpR level so that trainees may learn to reflect at an early stage. However, the format for SHOs may be different from that for SpRs.
- (iii) To make the structure of the portfolio simpler and easy to complete, certain very specific and trivial details about activities conducted in past years may be avoided.
- (iv) To save the time of the trainees and the RITA and appraisal panels, duplication of information in the portfolio, RITA and appraisal forms should be minimised.

Non-clinical Activities

- (i) Trainees should be made aware of their role in developing the profession and themselves. In addition to this, the role of non-clinical skills in their development and the development of the profession should also be highlighted so that they pursue these activities with more interest.
- (ii) Provision for running audits at hospitals should be made so that SpRs could contribute to the audits during their hospital attachment. This will allow the conduct of good detailed audits that require more than six months to complete.

- (iii) Writing articles based on reflections in the portfolios on issues related to day-to-day practice should be encouraged. This would increase the utility of the portfolio as well as reduce the scarcity of the articles directly related to practice.
- (iv) Exclusive time should be earmarked in the training schedule for non-clinical activities such as reading and publishing journals, while the provision of training or guidance in developing academic writing skills would enable more SpRs to write for publication.
- (v) Apart from preparing duty rotas, SpRs should also be engaged in other activities related to the management of hospitals. This would train them in different aspects of hospital management as well as give them a sense of ownership.

Existing Assessment System

- (i) Consultants should be asked to prepare their reports in consultation with trainees to make the assessment process more inclusive and transparent. Moreover, one interim report should be provided in the middle of the attachment period so that trainees have an opportunity to improve based on this report.
- (ii) An increase in the amount and frequency of formative assessment which is specific in nature is needed at the QSA to make assessment more valid and reduce misunderstanding about the influence of extraneous factors on it.
- (iii) A conducive social environment for providing more opportunity for interaction amongst SpRs along with culture of trust needs to be developed so that SpRs can share their views frankly.

6.8 Need for Further Research

A number of suggestions about ways of making the portfolio more effective and improving the existing assessment system at the QSA have emerged from this research. In order to clearly understand the effectiveness and implications of these suggestions, further research is required as described below:

- (i) PSLA was introduced on the assumption that it might develop the attitude towards self-directed learning (Olson, 1991). But this study has shown that it is very difficult for trainees to derive any benefits from PSLA unless they already have a minimum attitude of self-directed learning. Similarly, Yueh (1997), and Smith and Tillema (2001) suggest that there is a significant relationship between the quality of a portfolio and the extent to which the students are self-regulated. However, the research conducted at the QSA seems to suggest that the relationship between an attitude towards self-directed learning and the effective use of portfolios is symbiotic. In order to prove this relationship conclusively; a separate study is needed.
- (ii) Mokhtari *et al.* (1996) studied a small sample and concluded that the attitudes of the teachers towards portfolio assessment influence considerably the effectiveness of portfolios in the teaching-learning process: there is therefore a need for further research using larger samples. In the present study, I could not explore the views of the consultants owing to limitations of time, and since the focus of the study was on the views and feelings of learners. Future studies could explore the relationship between the attitudes of the teachers towards the portfolio and its effectiveness.
- (iii) It is suggested that future studies might explore in more detail the effect of socio-cultural context in which portfolio is used on its effectiveness.
- (iv) At the QSA, the mandatory or voluntary status of the portfolio was not clear to trainees and so different SpRs treated it differently. This research indicates that the assumed status

greatly affected the way they used it. In order to obtain a clear understanding on this issue, further research could explore the impact of a portfolio implemented in two different ways: mandatory, and voluntary, in the same setting, by splitting the trainees into two groups and carrying out a comparative study.

- (v) Self-assessment also includes designing assessment methods and deciding on the criteria and standards for assessment (Heron, 1995). It is therefore necessary to involve trainees at the design stage of the portfolio format. A separate study may be conducted in which trainees are involved at the conceptual stage. It is hoped that then more trainees would own the portfolio and there would be less misunderstanding.
- (vi) This research has indicated that external motivation was the main driving force behind the SpRs' preparation of their portfolios, but this process did give the trainees a certain degree of internal motivation. A longitudinal study is required to establish this finding conclusively.
- (vii) According to the SpRs, the consultants' feedback was the most important and effective part of their assessment, but at the QSA the quality of feedback provided by consultants was not satisfactory. Separate research is needed to identify the exact reason for this state of affairs and to suggest remedial measures.
- (viii) It has been proposed that each SpR be attached to a consultant of his/her choice so that guidance in self-assessment, and in clinical and non-clinical training may be given. Research is also needed to ascertain the effectiveness of this arrangement.

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

BMA: British Medical Association
CCST: Certificate of Completion of Specialist Training.
FRCA: Fellow of Royal College of Anaesthetists
GMC: General Medical Council
ITA: In Training Assessment
NHS: National Health Service
OBA: Outcome Based Assessment
OBL: Outcome Based Learning
PBA: Portfolio-Based Assessment
PBL: Problem Based Learning
PSLA: Portfolio-Supported Learning and Assessment
PPDP: Practicing Professional Development Plan
PPP: Process of Preparation of Portfolio
QSA: Queen's School of Anaesthesia
RITA: Record of In Training Assessment
SDL: Self Directed Learning
SHO: Specialist House Officer
SpR: Specialist Registrar
SpRs: Specialist Registrars

Speciality of Anaesthesia: a general introduction

Anaesthesia is the largest acute hospital speciality. The central task of anaesthetists is to provide suitable conditions for surgical operations. This traditionally involves making the patient unconscious and insensitive to pain. Nowadays this task, in the operating theatre, may be more complex and anaesthesia may not involve unconsciousness (general anaesthesia) and pain relief may be obtained by applying drugs directly to nerves that are carrying pain (regional or local anaesthesia). Surgical anaesthesia robs the patient of many of their normal physiological controls and surgery is an anatomical and physiological insult. The task of the anaesthetist is to control the anaesthesia at a suitable depth that does not harm the patient and to manage the patients' response to surgery where normal control has been removed.

Contrary to the common belief of patients, the anaesthetist is present throughout surgery to look after the patient. This process will require constant decision making in the light of physiological and laboratory data. All patients will require some sort of management of their airway and many will require replacement of normal respiratory function by use of a respirator. The anaesthetist must therefore understand:

- ☐ The nature and effect of each surgical intervention
- ☐ Normal physiology
- ☐ The effect of disease processes on the physiology of patients having surgery
- ☐ The pharmacology of anaesthetic drugs and of other drugs taken by patients who present for surgery
- ☐ The physics and general principles of anaesthetic apparatus.

Nowadays anaesthesia is a high-tech occupation involving rapid decision making in the face of great uncertainty. The normal duties of anaesthetists also involve them in ward work. They make assessments of patients prior to surgery and supervise some aspects of post-operative care.

Within the broad specialty of surgical anaesthesia are many sub-specialties. Patients having surgery for specialised areas such as cardiac and neurological surgery have particular problems that demand specialised care. Less self evidently most branches of surgery call for particular skills in the anaesthetist and many anaesthetists develop sub-specialty interests and skills.

From this core of practice anaesthetists have become involved in other aspects of medical care

1. Intensive Care. Some of the core skills of anaesthesia are also core to the care of the critically ill patient and anaesthetists are intimately concerned in giving and organising such care. All trainee anaesthetists are trained to deliver routine critical care and many are trained as critical care specialists.
2. Pain relief in labour. Some anaesthetists work principally in maternity obstetric care running analgesia services and providing anaesthesia for operative and instrumental interventions.
3. Chronic pain. Many anaesthetists specialise in the symptomatic control of patients with chronic pain such as in case of terminally ill cancer patients.

In the United Kingdom all anaesthetics are administered by medically qualified anaesthetists. Entry to the specialist register for anaesthesia follows five years at medical school, a years mandatory “house jobs” (a requirement for full GMC registration) and seven years specialist training (2 years as a Senior House Officer & 5 as a Specialist Registrar. The majority of trainees will also spend at least a year in a “ward based” medical specialty such as general medicine. Following award of a Certificate of Completion of Training the doctor is enrolled on the Specialist Register maintained by the GMC and may be appointed to a post as a Consultant Anaesthetist. Anaesthetic learners work under supervision. Some of their work is in a one to one relationship with a consultant but some work they do alone seeking assistance and advice only as necessary. In general as the trainee gains experience they do more and more complex work independently. This UK system of training is different from the practice in many countries where trainee specialists always work with a supervisor present.

Acknowledgement: Above description is based on discussions with Director of School of Anaesthesia and I am thankful to him for the same.

System of Training and Assessment in Medical Education at UK

The general pattern of medical training and assessment from entry into University as a medical student to appointment as NHS (National Health Service) consultant currently consists of four phases as under.

Undergraduate Medical Education

The entry qualification for undergraduate medical education is GCSE 'A' level. Students aspiring for admission into medical education are required to pass GCSE 'A' levels with at least one 'A' and two 'B' in three science subjects out of which one should be chemistry. This is a five year programme, which culminates in the professional degree of MBChS or MBBS

Assessment during this phase of training is normally by essay questions, MCQs (Multiple Choice Questions) and OSCE (Objectively Structured Clinical Examination)

General Clinical Training

General Clinical Training is the statutory term used for the mandatory practical experience acquired during one year duration of the training after provisional registration with the General Medical Council (GMC). Trainee is known as Pre Registration House Officer (PRHO) during this period. Completion of this stage of medical education leads to full registration as a General Practitioner (GP)

Basic Specialist Training

It is also known as 'General Professional Training' but the term 'Basic Specialist Training' is most widely accepted and used. This training takes two to three years following full registration. During these years a trainee acquires increased but supervised responsibility for patient care and develops the wide range of general and

basic specialist skills needed for the practice in the speciality concerned. Trainee is known as Senior House Officer (SHO) during this phase of his career

In case of Anaesthetics the minimum duration of this training is two years, which can extend to three years in case of some trainees. The most important and different feature in case of the anaesthetics is that trainee has to work in some other speciality as senior house officer for at least one year before he/she can be registered as SHO in anaesthesia. In other words the total minimum period for Basic Specialist Training (i.e. the period between the General Clinical Training and the Higher Specialist Training) is three years. The entry to Basic Specialist Training is based on a job interview in which trainee can appear after completion of one years SHOs' job in any other speciality. As this education is mainly work based, System of assessment during SHO ship has more focus on formative assessment. Formative and summative assessment is described as under:

(a)Formative Assessment: - During these two years trainees' on the job performance is assessed frequently in a rigorous way. The frequency of assessment is more in the initial phase of the training, which is to ensure that trainees master minimum competencies properly without endangering patients' safety. In Schools of Anaesthesia objectives of training and corresponding assessment is specified by dividing these two years in following time blocks.

First month (end of introductory month)

Second and third month (end of first trimester)

Fourth to sixth month (end of first semester)

Seventh to ninth month (end of first year)

Tenth to Eighteenth month (end of first and half year)

Nineteenth to twenty fourth month (end of second year)

These assessments are mainly based on:

Observation in the operating theatre and wards, competencies of trainees are assessed with the help of detailed checklists (Check list have list of skills on which tutor marks yes/no against each skill depending upon the achievement of that skill by the trainee). The competencies are specified in detail in curriculum along with assessment criteria and standards of performance. Consultants also informally ask questions at work place to ascertain that trainee has performed with understanding of what s/he is doing.

(b) Summative Assessment:

- (1) Trainee is supposed to pass the two regional exams i.e. one each at the end of year one and two.
- (2) Trainee is also expected to succeed in Primary FRCA (Fellow of Royal College of Anaesthetists) exam conducted by Royal College of Anaesthetists.
- (3) He/she should be able to conduct a regional anaesthetic list assessment at the end of each year.
- (4) And should also be able to attempt the ALTS course and present an audit topic to local department.

Higher Specialist Training

This is the final phase of the training before appointment of trainee as a consultant. Duration of this training varies from two to six years for various specialities. In case of anaesthesia it is minimum four years, which may extend to five years or more in case of some trainees. Trainees are known as Specialist Registrars or SpRs during this phase of the training.

The objective of this part of training is to develop complex and higher level competencies in trainees. Apart from clinical competencies administrative, managerial and academic competencies are also developed. According to The CCST in Anaesthesia: A manual for trainees and trainers, Vol. II (Royal College of Anaesthetists, 2000) some of the areas in which competencies are developed are:

Conducting research in a systematic way

Auditing (Medical)

Training and teaching juniors (Undergraduate students, PRHOs and SHOs)

Appraisal of juniors

Self appraisal

Scientific writing

Financial/contracting issues

Continuing self development

Management of anaesthetic department

Negotiations

Interviewing techniques

System of assessment for Higher Specialist Training

- (i) **Formative Assessment:** - Formative assessment in this phase is supported by Appraisal process. Joint centre for the Education in Medicine (1999:4-5) London in collaboration with Open University-Institute of Educational Technology has framed Guidelines on Assessment and Appraisal (Second draft). According to these guidelines appraisal and assessment are kept entirely separate.

“Appraisal is the regular discussion and feedback that occurs between SpRs and senior about the SpRs progress and training needs....Assessment is conscious and systematic gathering of valid and reliable information about the SpRs’ performance to enable judgement to be made (by the annual review panel) about satisfactory progress in relation to known pre-set standards”

So, appraisal and assessment are two entirely different activities, which take place in parallel. Normally outcome of assessment is discussed in appraisal process, but outcomes of appraisal are not supposed to be part of assessment. However if in some special case outcomes of the appraisal has to be used to help further assessment process then it should be with the knowledge of the trainees

A guide to Specialist Registrar Training, commonly known as orange book (NHS Executive, 1996) is very clear about the relationship between the appraisal and assessment according to this:

“Informal discussion, possibly as part of appraisal should occur regularly, so that trainees know clearly where they stand, and may be informed by the results of assessment which are applied throughout the year. ...Trainees must be told when the outcome of meetings with the supervising consultants or educational will inform the assessment process and may be included in the annual review” (NHS Executive, 1996: 63-64)

Formative assessment system is commonly known as ITA (In Training Assessment). In this system each consultant under whom SpR has worked is supposed to assess the performance of him/her in a prescribed assessment sheet and hand over this sheet to college tutor. College tutor collects these sheets (no of such sheets may vary between five to twelve) and discusses with SpR periodically (every month) and prepares a summary of these sheets. Such summaries are handed over to Appraisal Committees.

This committee is also handed over results of the in theatre assessment for that period. Such appraisal committees constitutes of at least two members (They may be college tutor, senior consultants etc). This committee discusses the progress made by SpR in light of summary provided by college tutor and results of in theatre assessment. SpR attends the meeting with logbook, and s/he is provided with full freedom to share her/his views. The committee along with trainee prepares a personal development plan for the future. These outcomes of the appraisal committee are for use of trainee only and are normally not feed to RITA (Record of In Training Assessment). If in some circumstances it has to be provided to RITA then it should be in knowledge of the trainee.

Summative Assessment

It has mainly two components, namely FRCA exams and RITA. FRCA (Fellow of Royal College of Anaesthetists) exams mainly assess the theoretical knowledge of the trainee and have two stages, preliminary and final, both of them are conducted by Royal College of Anaesthetists and SpRs are normally supposed to pass these within first three years of their Higher Specialist Training. While RITA (Record of In Training Assessment) is concerned about performance of trainee in clinical and non-clinical activities during training, it is conducted every year at regional level. RITA needs more discussion as under:

RITA

It is an annual exercise; normally a four-member panel having representatives of college, deanery, consultants and academics is constituted for this purpose. The job of RITA panel is to review and record reliable and valid assessment evidences and to classify the SpR accordingly It is worth mentioning here that RITA panel is not a primary information gathering body in its own right. The job of the panel is to have expert judgement on the results of assessment already undertaken and submitted to the panel for this purpose. Normally summary of college tutors, results of in theatre assessments, and summary of logbook of SpR is provided to this panel. SpR attends the meeting with logbook and records of achievement if any. Based on records and discussions held with SpR, panel issues any of the following forms to him/her:

Form C: it means that trainee has made sufficient progress to proceed to the next year of training

Form D: This is issued if there have been difficulties in areas which can be remedied in next year of training. It means trainee is promoted to next year but shortcomings are clearly spelt out with recommendations for targeted training to overcome them.

Form E: This means that progress during the year has been completely unsatisfactory and therefore trainee should repeat the year.

Form F: This means that registrar should withdraw himself from training. This form is issued when failure to make satisfactory progress has been evidenced at more than one review and SpR has been given access to remedial and/or repeat experiences and has had an appeal procedure and counselling made available

Form G: It means that SpR has completed the training successfully, this form is issued when trainee shows satisfactory progress in the final year (i.e. the fourth year of higher specialist training). This form is also known as CCST (Certification of Completion of Specialist training)

When form G is issued then trainee is awarded a UK CCST (UK Certificate of Completion of Specialist Training) Trainee is allotted a NTN (National Training Number). This number is vacancy based and is allotted only when available. If all of the above conditions are fulfilled trainee is ready to be appointed as Consultant.

References: Please see the main references page nos. 408 to 467

Proposed Structure of Portfolios for SpRs at QSA

According to, Director of the school, the aims of introducing a portfolio at QSA were:

- (i) To promote self-directed and reflective learning in SpRs so that they can try to continue developing professionally after becoming consultants
- (ii) To promote the interest of SpRs in non-clinical activities, which are considered important for growth of whole profession as well as professionals individually. According to him, these activities are not taken care of to the desired degree in the present arrangement of education for SpRs.

In the following paragraphs, the proposed structure of the portfolio is discussed theoretically in relation to these aims and in the light of existing literature. The important issue of whether the introduction of portfolios could achieve these aims is discussed empirically in chapters, based on empirical data about the experiences of SpRs of engaging with portfolios.

The proposed structure of the portfolio includes almost all parts of training and even other aspects of individual's life that may not be directly related to the profession but may have some bearing on it. It requires SpRs to describe various experiences and to reflect on those experiences, and in the last sections it has provision for SpRs to plan future learning. The spirit of this portfolio can be described in the words of Brigden (1999)

"It (portfolio) is a dynamic and tailor made document that states experience alongside future objectives. It thus provides hard evidence that learning has taken place because it documents not only your experience but also your changing career objectives. A learning portfolio should be a personal summary of the learning events in your life. It may be formal but it may also include diverse events from outside clinical work that have contributed to your development. The entire content of the portfolio need not to be displayed at all times: Components may be chosen for certain events. Such a document may be an important contribution to a record of in-training assessment (RITA) and may encapsulate more than any other assessment document."

Brigden, D. (1999, page 1 of four)

The proposed portfolio has following main parts:

(I) General Information

This part includes sections like personal details, membership of societies, journals subscribed, employment details and examination records. The purpose of these sections is to summarise past achievements so that the learner and other interested persons have an overview of learner's past educational and employment history and achievements. Nevertheless, sections like employment details provide scope for learners to reflect on their past performance at macro level by asking to fill in boxes such as key responsibility of the post in clinical, managerial and educational areas, and knowledge and skills gained in these areas. It is presumed that the process of filling of these boxes will prompt learners to think about what skills and knowledge they have gained out of such experiences and what else is remaining.

I will try to explore in the research study the extent to which this aim is achieved. Similarly in the section about examination records, learners are asked to fill in boxes about preparation done by them for royal college exams and their view about the adequacy of those preparations. It is presupposed that filling in these boxes will make him/her to think about omissions in past and to learn from these experiences for future.

(II) Non-Clinical Activities

Gray (1996) argues that in most fields specialisation is becoming narrower and hence it is important for consultants to engage in peripheral activities to satisfy their professional life and to maintain a wider outlook. Here peripheral means those activities which are not core such as clinical work, but which are important for the profession as a whole such as research projects, publications, medical audit, management responsibilities, teaching juniors and courses attended about these activities. Gray further suggests that such activities help in the growth of profession and make professionals more compatible to face the changes taking place in society and technology. This part of portfolio includes sections on such non-clinical activities, in these sections some thought provoking questions are asked from SpRs and they are supposed to evaluate their work and others' work. In following paragraphs some examples of questions to be replied and evaluations to be performed by SpRs are

given, and according to Director of school, the perceived purpose of these questions and activities is to prompt learners to reflect.

(a) Research and Development Projects

The Physicians Charter developed by Medical Professionalism Project (Sox, 2002) and the contemporary literature (Swick, 2000, Khera et al 2001, and Pencheon, 1998) suggests that to develop the profession by engaging in the research is also a key part of professionalism. Director of school pointed out that it is not necessary that every SpR would conduct research. However, during training every one is supposed to conduct research so that they have an exposure and first hand experience of the conducting research and can evaluate their capability and interest of engaging in research to take informed decision about engaging in research after becoming consultant. One separate section in portfolio is therefore devoted to this component and questions such as following are asked to engender reflection about various aspects of the research:

What is the importance of this research? What is your contribution in this project? How have you obtained the ethical approval? Evaluate the importance of your result?

(b) Publications

Engaging in theoretical or empirical research and publishing papers is considered important for the growth of individuals as well as of the profession as whole. Even writing letters as comments on published papers is considered as one way of learning to assess the validity of information and critical appraisal skills (Edwards, *et al.* 2001). Based on these assumptions, a section is added in the portfolio about publications and questions are asked such as: Describe how you wrote this article? What is good about this article? What is less good about this article? What did you learn from writing this article? What do you intend to do to get it published?

(c) Medical audit

Snadden and Thomas (1998) suggest that audits should form part of the portfolio, Moreover, they emphasise that it should not be a simple description of audit but should have reflective comments on the process of audit and enumeration of what has been learned from it. In this portfolio, a section on medical audit has been added and following questions are asked:

Describe how much work you did to accomplish this audit? What changes were made in response to this audit? Has this audit changed practice? Did you present this audit in a meeting?

(d) Management Responsibilities

Leung, (2000) argue that there is growing tension between professionalism and managerialism in the UK due to the creation of large welfare organisations such as NHS Trusts and the monitoring of the efficiency of these organisations by managers. He further suggests that in such a scenario, it has become imperative for professionals to learn about management and to associate themselves with managerial issues so that better understanding can be developed between managerialism and professionalism. This portfolio has one section devoted to managerial duties undertaken by learners and the following questions are asked: What training did you receive for this work? How did you prepare for this task? How did it go? What feedback did you get?

(e) Teaching juniors and presentations

According to Director of School, teaching juniors and making presentation on some different type of experiences or new techniques are most common non-clinical activities in which trainees engage themselves. Most trainees devote substantial time on these activities and hence detailed sections are kept in the portfolio about teaching juniors and presentation activities. Following questions are asked in these sections: How did you prepared for this training? What went well? What went less well? Did your presentation meet its stated objectives? Did you ask for feedback?

(f) Courses attended about audit, teaching, research and management

Snadden and Thomas (1998:195) suggest that reflection on learning taken place during the tutorials or training attended is as important as reflection on learning during clinical experiences. Because such reflections can identify the shortcomings in the training attended and help in planning future training to be attended and making most of the time devoted in attending such training. Following questions are therefore asked in the portfolio to engender the reflection about different training programmes about audit, teaching, research and management. What was good about this course? What was bad about this course? Did the course meet its stated objective? Were your objectives met? Did you speak or ask questions?

(III) Clinical experience

In this section, trainees are asked to reflect upon the critical incident faced by them during their clinical experiences, and questions such as: What could have prevented this mishap? How has this experience affected your practice? are asked with an aim to prompt learner to reflect. Critical incident analysis is considered important for triggering reflection (Brookfield, 1990) since a prime condition for reflection is that an event or situation beyond the individual's common experiences should occur. According to Loughran (1996), when learner perceives experience as problematic or puzzling and situations need more attention, then reflection occurs. However, Henderson *et al.* (2002) suggest that the term 'critical incident' is not a proper term since learners think that it refers to an event where the doctor had mismanaged the situation, and because of this negative undertone, most of the doctors does not report such events. They suggest therefore, that the term 'significant event' should be used instead.

In this portfolio, learners are also requested to describe the interesting cases that they might have experienced during clinical practice. It is important for learners to learn to write about cases. According to Cox (2001), cases are akin to stories and they contain the human story of illness and a medical story of disease, which together cover person management, illness management, system management and self management. He argues that knowledge about all these can be learned to a great extent via a sufficient and relevant set of stories of typical and atypical core cases compiled by clinicians. Moreover, he points out that experiences if not shared with others in the forms of stories may remain embedded in one person's memory and others might not take advantage of these. However, this process of story-telling or describing an important case is also useful, not only to the listener or reader of story but to the story-teller as well. As Cox argues:

"We mentally retrieve a case pattern more easily if we have talked about the case, turning our perceptual image of the patient into words stored in the language brain, increasing our neural net's linkages. We retrieve the pattern more accurately if we have carefully described the specific details." Cox, K. (2001: 865)

Pringle *et al.* (1995) suggests that clinicians not only tell stories about patients, but also tell them about themselves. They claim that storytelling enables clinicians to

reflect on, uphold and refine their roles as health professionals, especially in relation to critical or significant events. In a similar vein, Bolton (2001) and McCance *et al.* (2001) point out that in a protected small group environment, clinicians tend to tell stories about ‘difficult’ patients and situations, about their professional roles and perceived failures in them, and about contentious relationships within and across professional boundaries. According to Boykin and Schoenhofer (1991), describing an experience by reducing it into facts and reasons can not serve the same purpose as that served by describing the whole experience in the form of a case or story. That is because scientific reasoning requires consistency and non-contradiction, and hence it ignores the ambiguity and nuances of the situations. In contrast description of experience in the form of a story can convey the complexity, ambiguity and uniqueness of the situation and the factors that has affected decisions taken or choices made.

Portfolios can provide a structure for writing down such cases or stories and a mechanism for sharing those stories among practitioners. It is hoped that this process of writing and sharing of cases and stories will result in better learning from experiences and creation of practical knowledge. However, Greenhalgh (2001) warns that there is very little empirical evidence that storytelling results in better learning and hence there is a need for more research in this area.

(IV) The summary of Log Book

Proposed structure of the SpR’s portfolio also includes summary of their logbook. Logbook has been used as a tool to keep record of experiences of individual learners in work-based educational contexts such as medical schools where different learners can have different experiences based on the type of patients and diseases they encounter. According to Murray *et al.* (2001), a logbook also serves an important purpose of self-monitoring the work done over a period of time. This helps in identifying the areas where more experience is needed so that teaching – learning can be planned accordingly. However, I have argued elsewhere (Gupta, 2003) that, although a logbook serves the important purpose of keeping track of training it neither record much about the quality of the performance and nor provide an opportunity for writing down the reflections of the learners on her/his performance. A logbook may therefore be seen as complementary to portfolio, where it can be used as a list of clinical experiences while the portfolio is for reflection on selected clinical and non-

clinical experiences. Based on this premise, the inclusion of a summary of log book in a portfolio may prove useful since this summary will provide an idea of the clinical experience of the learner with reference to which non-clinical experiences of learner as described in portfolio can be understood. This research study will try to know that how this merging of logbook and portfolio is working.

(V) Generic Skills

One section of portfolio is devoted to generic skills such as communication skills, time management skills and ability to work in teams as a member and leader. There are separate sub-sections for each of these skills and learners are asked questions to promote reflection in these areas. According to Director of school, learners are aware of importance of these skills and efforts are made in the curriculum to improve these skills, but it is not clear that how much learners know about their own abilities in these areas since there is no formal mechanism to assess such skills. It is therefore presumed that reflection about these skills will make learners aware of their abilities and will prompt them to improve them. Some examples of questions asked in portfolio with reference to each of these skills are outlined below.

(a) Teamwork and leadership

Learners are asked to describe one event each where they worked as member of team and where they worked as leader of team, and for both type of situations to identify where the team worked well and where the team could not work so well. Some of the questions asked for promoting reflection about these situations are: Why was the team successful? What did the team leader do well? What would you do differently? Was team leader a good leader? What other approaches to deal with the team could have been more effective? Why was the team dysfunctional? What could leader have done differently? What could others have done differently? What did you find difficult as team leader?

Learners are advised that they can request their peers or supervisors to observe them working in team and then discuss their performance with them.

(b) Time Management

Learners are asked to keep a time log for one day and then to reflect on following questions at the end of that day: What did you aim to achieve, but failed? What factors contributed to failure? Did you delegate any thing? Did delegating save you time? How could you have used your time more effectively that day?

Learners are then asked to prepare a plan for one week prioritising different tasks in categories based on their importance and trying to execute the plan according to the priority of these tasks. At the end of the week, they reflect on these questions again.

(C) Communication

Learners are asked to reflect about their communication skills by thinking about episodes of discussions with their colleagues and patients. They are supposed to select both types of cases, namely cases where discussion went well as well and not so well. Some of the questions asked to engender reflection are: Are you confident that the patient understood what you described? How did you assess patient's satisfaction with your conversation? What aspects of your involvement were good and what you could have handled better? What characteristics does the other party show that you find difficult? What characteristics of your own contribute to the communication problems?

Learners are asked to decide their learning needs in this area based on such reflection and then to improve skills, either by attending some course or by asking peers or supervisors to give frank feedback whenever their performance is not up to standards.

(VI) Personal development Plan

The last section of the proposed portfolio structure is a personal development plan. In this section learners are asked first to describe their progress in the last year of training, and to compare achievements with the aims set a year before. Finally, they are asked to plan their learning for the current year. This section is akin to the concept of personal learning plans, Challias (2000) argues that personal learning plans are useful since these provide autonomy as well as some responsibility for learning. Since learners set their own goals, they own those goals and strive to achieve them. Parsell and Bligh (1996) suggest that personal learning plans are most suited for learning at

registrar level since more flexibility of learning is available at this level in comparison to that at undergraduate level. Brambleby and Coats (1997) points out that use of personal learning plans should be promoted for registrars, since by using learning plans they will learn to do systematic self-appraisal of themselves. This ability to do systematic self appraisal will be useful when registrars will become consultant and will not have same level of support and supervision available to them as that is available in educational setting.

References: Please see the main references page nos. 408 to 467

Appendix no. (v)

My Epistemological and Ontological Beliefs

As for as my epistemological and ontological beliefs are concerned, they are shaped by my educational and work experiences, study of educational research literature and my upbringing in an Indian way of life. To start with I am going to describe that how my upbringing in an Indian way of life has formed my epistemological and ontological beliefs. It is imperative for me to describe this since I cannot summarise it as in much of the western literature on research, researcher does by saying that I am ‘a middle aged, middle class, white male’. Nevertheless, these epistemological and ontological beliefs, based on my Indian way of life, were not explicit till I started this research. These beliefs were blurred and subconscious to a great extent, and study of educational research literature has helped me to make them clear to myself. I start with explaining that how study of literature has made my understanding better about three Indian childhood stories.

Three childhood stories, which summarise my epistemological and ontological beliefs:

Most Indian children learn many stories from Panchtantra and Jatak Kathas written in about 500BC. These stories convey some important morals and lessons to children. Many of these stories use animals as characters to make them interesting and easy to understand. Some of them are quite famous such as ‘Turtle and Rabbit ’ the message of this story was very clear and easy to understand for me as child and it was that even turtle can defeat a rabbit in race if the rabbit becomes complacent and takes rest in between the race. But three different stories, which were about human beings, have puzzled me since my childhood and I could not understand their true meaning till I started this research. After nearly three years of research experience, I can now understand the ontological and epistemological message hidden in those stories. These messages summarise my ontological and epistemological beliefs and hence I consider it proper to narrate these stories and my improved understanding of them in brief here:

(I) Five blind students and an elephant

There were five blind students. One day they asked their teacher how does an elephant look? The teacher brought them close to a quite big statue of an elephant and asked them to feel it. The first student touched leg of elephant and claimed that it looks like a strong column. The second student touched the trunk of it and suggested it is like a flexible pipe. The third student touched its' tail and argued that is like a rope. The fourth student touched its' ear and pointed out that it is like a cloth and the fifth touched its' belly and explained that it is like a rock. The students started debating with each other and every one started claiming that only his/her perception is correct. Then teacher intervened and explained to them that all were right in their own way, but problem is that each one of them had realised different parts of the reality, purpose of this exercise was therefore to make them understand that their capabilities of senses are limited and that therefore some times it is difficult for you to feel whole thing especially if it is big and complex. Hence you have to construct the total reality in their mind based on others' views also.

During my childhood I use to wonder that why this story was taught to us, since it is better that this story should be taught to only blind students. But now I can understand that there is an ontological message in this story that reality exists independent of our thoughts and it is big and complex. However, different people create the reality in different ways based on their different experiences and learning from experiences is also limited by limits of senses and reasoning ability. There is an epistemological message also in this story, namely that the views of different people that are based on their different experiences about the same thing can be joined properly in order to give us a better idea about that thing as opposed to the view of a single person. However, it is assumed here that the abilities of senses and thinking are nearly the same in most people as in the case of five blind students. At the same time this story also suggests that there can be some enlightened persons who may have more abilities than others like the teacher of those blind students.

(II) Father, Son and their Donkey

Once a man with his teenage son and a donkey took a journey from one city to another. Since they were not carrying any luggage, the donkey was walking without any load. When they passed through a village a group of middle-aged men saw them and commented, “How foolish they are, donkey is walking free, any one can ride on donkey”. The father and son listened to this comment, and hence father asked son to ride on the donkey. When they passed through next village, a group of old men saw them and commented that “How much the world has changed; now there is no respect for age, see father is walking while son is enjoying ride.” Listening to this the son requested the father to ride the donkey and son started walking. When they reached the next village a group of teenage boys saw them and commented “How selfish father is, son is walking and father is enjoying the ride”. Hearing this, the father could not decide what to do and in a huff asked the son to also ride on donkey with him. When they passed through next village a group of women met them and commented “How cruel! These men are over-loading the donkey.” Listening to this, father and son become frustrated and left the donkey in that village and ran away.

My primary school teacher told me that lesson of this story is that we should not listen to others’ views and should do what we feel appropriate, according to the situation. I said yes to her at that time, but one question kept worrying me, namely what was appropriate for the father and son? Maybe they should have ridden the donkey in turn and in between they could have also left the donkey free for some time. But the basic question remains that in whatever position people might have seen them, they would have passed some comment. Another question is what would have been the comments of group of old men if they had seen the father riding and son walking. Similarly, what would have been the comment of the group of women if they had seen nobody riding the donkey or the son riding the donkey and the father walking and so on? I could not find an answer to these questions, till I started this research. However, I can say now that there was an epistemological message in the story: that is, everyone analyses the situation from his/her own perspective or context and hence the description of reality is value laden. It is therefore very difficult to say that which description

of reality is more correct. One more thing needs attention in this story, namely that comments were from the groups of different types of people and not by individuals, and there seems unanimity within those groups about the comments passed by them. This aspect of the story offers the subtler epistemological message that the different people can have same opinion about some reality if they share same context. In this story the group were homogenous and they had the same context based on age and gender of the group members.

(III) Blind City and stupid king

Once in a city-state, one landlord was building his house, while a wall was under construction, a freely roaming sheep came close to it and leaned on it. As a result, the wall fell over the sheep and it died. The shepherd claimed compensation from the landlord for the sheep, while landlord claimed compensation from the shepherd for the wall. There was an altercation and the matter was brought to the court of the king of that city. The King appointed a committee of experts (read academics or intellectuals) to decide whose fault it was. Members of committee went to the site to see the matter. They decided that there was no fault of shepherd since he had given the right of freedom to sheep to move around (read civil liberties) and you cannot expect shepherd to control the sheep properly since he was not trained for it (read disadvantaged groups) and the landlord (read capitalist) should have fenced construction premises well and, therefore landlord should give compensation for sheep. But then the landlord argued that it was the fault of mason, which had made the wall weak and hence mason should be punished rather than him. The group of masons (read unions) protested against this and suggested that it was the mistake of unskilled labour, which has poured more water in the mortar and because of that the wall, became so weak that it fell down. This resulted in a group of labours (another union) challenging against it and they pointed out that a labour poured more water since he got disturbed by a beggar, who had just came on the site, when he was preparing the mortar. So the committee of experts decided that basically it was the beggar that caused the death of sheep and hence he should pay compensation, however since the beggar did not had the money, king ruled that beggar should be jailed. There were no further protests since beggar was also happy, enjoying free meals in jail at the cost of taxes paid by citizens of the city.

The moral of the story, as told by my teacher, was that we should not live in a city that has citizens who blame each other and where the king is unable to take right decisions. At that time of my childhood, I considered king as stupid as the title of the story suggests but I could not understand the significance of word ‘blind city’ and the question which kept me worrying was that if I was the king, what decision I would I have taken? I used to think that every one was bit responsible for the death of sheep, because the shepherd should not have left the sheep to roam around in city, landlord should have fenced the construction site properly, the mesons should have checked the quality of mortar, the labours should have worked carefully and so on. But now I have understood the lesson of the story and epistemological message it conveys, namely that reason of most of the social happenings can’t be assigned to one cause. Multiple reasons exist for every incident and it is even difficult for a committee of intellectuals to find out the main cause. Moreover, the king was not stupid, but he took a decision that was political rather than logical.

Now when I study current educational debates, such as whether amount of assessment should be increased or decreased from its present level, or whether assessment should be formal or informal, or whether there should be a national curriculum or a flexible curriculum, and whether there should be separate classes for special needs children or they should be taught with normal children, I realise that how difficult it is to say which approach is more correct. And, as far as the concept of ‘blind city’ is concerned, it relates to the effects of different interests groups, who shout in such loud voices that reality is obscured and sometimes, people who do not have loud voices (for example marginalized people like the beggar in the story) are held responsible for the ills of a society. Moreover surprisingly, a whole society accepts these types of decisions, as if it is blind, although it ends up paying taxes to support such decisions.

Therefore, the epistemological and ideological message of this story is that we should not be overwhelmed by the voices of different interest groups (read data) and the stream of wisdom and logic (read reasoning) should not be allowed to dry in the desert of data. Rather, we should use our wisdom and logic to understand those data and be cautious of the fact that data are not value-free. For me at present, the lesson of the story is that we should collect data from every group but should analyse it with specific reference to their context for a better understanding of it.

Influence of Indian way of life

Apart from above stories, my beliefs are embedded in ancient Indian Philosophy, which is reflected in the social behaviour of common Indian people. Common people do not know the philosophy responsible for their behaviour, but philosophy has been transformed into everyday common understanding. I would have liked to describe some examples of these behaviours to explain my philosophical beliefs but it would have occupied more space. However, some brief examples from theology of ancient Indian religions like Hinduism, Buddhism and Jainism, show that how philosophy is related to the core beliefs of the people. The Sanskrit word for philosophy is 'Darshan Shastra' which means 'science of seeing'. This name itself indicates an inherent ontological assumption that the world exists in its own way but different people see it in different ways and hence there is a need of science called philosophy to help us see the world in as proper way as possible. The basic tenet of this philosophy is that, since it is not possible to see things properly, no opinion can be termed a universal truth and hence nothing can be prescribed as the only solution for a problem. This concept is reflected in the fact that there is no single prescribed way of worship or book in these religions, instead there are many books and many ways of worshiping proposed by different *rishis* (*rishis* is a Sanskrit word which means 'seers', namely people who can see in proper way, these people were different from saints who were devoted only to propagating and following the religious values proposed by seers). Followers of these religions are free to choose the way of worship that they like or comfortable with, and hence I tend towards relativism in comparison to absolutism in the understanding of the truth. In other words, I respect presence of subjectivity in understanding of realities.

Another concept prevalent in these theologies is that there is a need for balance in every-thing for practical reasons and extreme adherence or use of even good concepts or things may also prove counter-productive. The reason for this belief is that even less useful things and concepts have value in some situations and if we adhered to only one thing or one concept, we miss the benefits of the other things. We should therefore try to use and extract some advantage of different things/concepts according to the need of the situation. (For example these ancient religions emphasise virtues of statue less worship but at the same time allows statue worship for less enlightened people. Because these people cannot visualise God as an abstract concept

and it is easy for them to believe God as some concrete entity). In a similar way I prefer to use a predominantly qualitative approach but will also use quantitative methods if they seem more useful practically in some situation for describing those multiple realities in easily comprehensible form.

Another important tenet of Indian philosophy is its belief in constructivism. There was one saying in ancient India that “There are as many forms of God as there are people in India.” Another saying “Every one creates the image of God based on his/her emotions and likings” supports this saying. These sayings were based on the belief that different persons have different type of experiences and that the nature of these experiences decides the knowledge about the reality held by that person. And s/he sees the new experiences in light of the existing knowledge and hence different people can construct same reality in different way, based on differences in their priori knowledge. But this constructivism is not about reality; rather, it is about the knowledge. In a way it is conceptual constructivism, which indicates the quality of concepts and not the quality of abstract reality, which exists independent of all such isms. Nevertheless, it can be suggested that conceptual constructivism also affects reality since actions of individuals are based on their understanding of reality and those actions create new realities. This constructivism accepts both an individual construction and a social construction of reality. However, it does not mean that constructivism is the only way of learning because it also recognises other ways of learning such as transfer of priori knowledge from one person to another and memorising of such knowledge.

Influence of formal Education and Work Experience

Another factor that has affected my epistemological beliefs is my formal education and work experience. My undergraduate and masters degrees were in engineering subjects and hence my formal education had a large component of mathematics and natural sciences. This educated me about importance of scientific methods of enquiry and quantitative techniques like statistics. Then I worked in an engineering industry for about nine years as design engineer: my responsibility was to design the power transformers, which were tailor-made for each customer. The quality of transformer was defined by about twenty different characteristics; design process to achieve these characteristics required manipulating various parameters

mathematically (quantitatively). It was never possible to achieve the entire characteristics since some of these characteristics were in tension with each other. So different designs were developed having different combinations of characteristics and a final design was selected from these. This final selection of design was not based on any mathematical rule; rather it used to be based on total quality of the transformer. However, most of the time this qualitative selection was based on only intuition or some fussy logic and it was difficult to justify decisions taken by us on an explicit basis. Thus the process of design of the transformers was highly quantitative activity, but final selection of design use to be a qualitative process. This experience taught me the importance of both quantitative as well qualitative thinking in decision making. Moreover, I also learned that there could be different but almost equally good solutions for same problem. However, during manufacturing processes techniques of statistical quality control were used for monitoring the quality of various components of transformer. This method was good for taking decisions about whole batches of components, and based on this technique, whole batch of components were selected or rejected. Yet, there was no guarantee that there are not some good components in rejected batches or some bad components in selected batches. Nevertheless, this method was used since it was cost effective although always there was always a minimal calculated risk present of using some bad components. This is an example of quantitative methods serving needs of quality. Such experiences taught me to use quantitative techniques as a compromise for taking decisions in some situations.

Finally, before starting this research, I worked for six years in an Institute for training teachers of technical colleges. My area of responsibility and interest was student assessment. And, over a period of time, I saw that if the purpose of assessment is to improve learning of the students, then the best approach is qualitative assessment that provides feedback. However, I was also involved in selecting students for engineering colleges. The ratio of aspiring students to seats available for engineering is quite high in India and in such a situation the only practically feasible method is to use multiple choice questions in entrance exams. This is for two reasons, first so that computers can be used to mark the large number of answer sheets and second to ensure high objectivity in marking needed for legal reasons since it is a high stake exam. Although we know that it is not valid to use only multiple-choice questions for selection

purposes, but that is the only feasible way in that circumstance. So, in the case of assessment, qualitative and quantitative methods are needed in different situations.

Interpretation of my beliefs in terms of western philosophy

I hope this narration will help the reader to understand this research study in the context of my epistemological and ontological beliefs and my experiences. Ultimately, in terms of western philosophy these beliefs can be interpreted or summarised as a realist view: Swann (1999) supports such view in following words:

“In particular we see the dichotomy between ‘objective’ or ‘positivist’ approaches and other interpretive, even post modern, approaches simplistic and some times unnecessary. We agree with Pawson and Tilley (1997:55) that a realist epistemology offers an approach to scientific explanation which ‘avoids the traditional epistemological poles of positivism and relativism.’”
Swann (1999:7)

Being realist means that I disagree with the basic postmodern idea that discourse is the only reality and world does not exist independently of our knowledge about it. However at the same time, I may share the post positivist idea that knowledge is a human construct. I agree with the notion that Knowledge is a description, interpretation, account, explanation, and understanding of reality _ but not, therefore, reality itself. I agree further that knowledge created by human beings either scientifically or by common sense is fallible and it may be because of so many reasons, such as its dependence on language and social construction socially (i.e. it depends on our perception and understanding of it and who we are). Therefore, it may be fallible for logical as well as social reasons.

I believe that we cannot be sure that our constructions describe the reality exactly, but I also believe that, in a given circumstance and with available data, we can find out that why one description of reality is preferable to another. First part of this assertion is in line with relativist thinking but the second part contradicts it, since, according to relativism, all points of view are equally valid.

However, this perspective does not mean that the ‘preferable description of reality’ is universal truth, or for that matter any kind of truth. I believe that the ‘preferable description of reality’ is the description based on well-accepted theories and available data.

This compromise aims to move research ahead in the service of the human race and in the search for new knowledge. New knowledge may challenge, modify or change existing knowledge (preferable description of reality in a particular context), although this new knowledge is developed with the help of existing knowledge. I agree that if any of the underpinning theories (theories based on which we have come to 'preferable description of reality') changes, then we have to review the 'preferable description of reality' in light of this change. Similarly, if more data are available to challenge the existing data then we have to review our 'preferable description of reality'.

I do not therefore subscribe to the positivist idea of universal truth, but at the same time, I do search for some kind of 'truth', which can serve a purpose within a specific context. Here the context is the 'Professional Education of SpRs in the speciality of anaesthesia at Northern Region of U.K. in the beginning of 21st century'. It is clear that this context comprises of three sub contexts, first the Professional Education of SpRs in the speciality of anaesthesia' (educational context) second the 'Northern Region of U.K.' (context of location) and third the 'beginning of 21st century' (context of time and history). Any change in one of the three contexts will mean that we have to review the truth in light of that change.

I draw my thinking from Joanna Swann's work on Karl Popper. And my thinking resembles almost nearly with following words of Popper:

"All acquired knowledge, all learning, consists of the modification (possibly the rejection) of some form of knowledge or disposition, which was there previously; and in the last instances, of inborn dispositions.....All growth of knowledge consists in the improvement of existing knowledge which is changed in the hope of approaching nearer to the truth." Popper (1979:71) as quoted by Swann (1999: 15)

References: Please see the main references page nos. 408 to 467

Final Research Questions

- (I) What are the attitudes of SpRs towards Portfolio Based Assessment?
- (II) To what extent are SpRs self-directed learners?
- (III) Which type of reflection can PBA promote amongst SpRs, and to what extent?
- (IV) To what extent does PBA enhance self-assessment, ipsative assessment, formal formative assessment and summative assessment?
- (V) How does PBA fit into the existing system of learning and assessment at the QSA?
- (VI) How can the existing system of PBA be further improved?

Questionnaire Regarding Record of in Training Assessment (RITA)

Note:
In this questionnaire the terms **In Training Assessment (ITA)** and **Record of In Training Assessment (RITA)** are used with following meanings.

In Training Assessment:
It is the assessment carried out by consultants during the period of attachment of a trainee and is formally reported at the end of every period of attachment. (A copy of this form is enclosed as appendix ‘A’ with this questionnaire for your reference).

Record of In Training Assessment:

It is the annual review of all records of in training assessments at which the plan for the next year of training is decided.

Part A (The Content, Methods, Criteria and Standards of Assessment)

Q.1. In your opinion, what relative importance is given to the different purposes of ITA (i.e. In Training Assessment) followed by RITA (i.e. Record of In Training Assessment)? *Please rate them on a 1 to 5 scale (by circling the appropriate number), where=1 not important and 5 = highly important.*

The ITA and RITA are to:

(i)	Certify your professional competence	1	2	3	4	5
(ii)	Provide feedback to you so that you can improve	1	2	3	4	5
(iii)	Provide feedback to consultants to improve their training strategies.	1	2	3	4	5
(iv)	Identify reasons for your professional weaknesses	1	2	3	4	5
(v)	Provide drill and practice to develop competence	1	2	3	4	5
(vi)	Allow comparison with peer group	1	2	3	4	5
(vii)	Any other purpose (please specify)	1	2	3	4	5

Q.2 How much relative importance do you think should the following qualities be given during training process in order to make you a good anesthetist? *Please give your opinion by rating them on a 1 to 5 scale (by circling the appropriate number), where 1=not important, and 5=highly important.*

(i)	Clinical understanding (understanding of the underlying scientific principles, disease process and therapeutic options).	1	2	3	4	5
(ii)	Ability to judge the condition of a patient (from the point of view of providing anesthesia)	1	2	3	4	5
(iii)	Ability to formulate and implement a plan of anesthesia based on condition of a patient and requirement of treatment.	1	2	3	4	5
(iv)	Practical skills for administration of anesthesia	1	2	3	4	5
(v)	Ability to manage an emergency situation	1	2	3	4	5
(vi)	Ability to teach	1	2	3	4	5
(vii)	Understanding of research methods.	1	2	3	4	5
(viii)	Understanding of clinical auditing process.	1	2	3	4	5
(ix)	Working in a team as a member	1	2	3	4	5
(x)	Leadership qualities	1	2	3	4	5
(xi)	Ethics	1	2	3	4	5
(xii)	Learning to learn	1	2	3	4	5
(xiii)	Communication with the patients and other medical staff.	1	2	3	4	5
(xiv)	Willingness to work hard	1	2	3	4	5
(xv)	Any other (Please specify) -----	1	2	3	4	5

Q.3 To what extent do the consultants assess the following professional skills and qualities during In Training Assessment (ITA) *(Please tick the appropriate box)*

Serial no.	Professional Skills and Qualities to be assessed	Under assessed	Sufficiently assessed	Over assessed
(i)	Clinical understanding (understanding of the under-lying scientific principles, disease process and therapeutic options).			
(ii)	Ability to judge the condition of a patient (from the point of view of providing anesthesia)			
(iii)	Ability to formulate and implement a plan of anesthesia based on condition of a patient and requirement of treatment.			
(iv)	Practical skills for administration of anesthesia			
(v)	Ability to manage an emergency situation			
(vi)	Ability to teach			
(vii)	Understanding of research methods.			
(viii)	Understanding of clinical auditing process.			
(ix)	Working in a team as a member			
(x)	Leadership qualities			
(xi)	Ethics			
(xii)	Learning to learn			
(xiii)	Communication with the patients and other medical staff.			
(xiv)	Willingness to work hard			
(xv)	Any other (Please specify) -----			

Q.4 How much relative importance should be given to the opinion of the following people in assessing your performance during clinical work? *Please give your opinion by rating them on a 1 to 5 scale by circling the appropriate number, (where 1 = not important and 5 = highly important)*

(a)	Consultants	1	2	3	4	5
(b)	Yourself (for self assessment)	1	2	3	4	5
(c)	Peers (other SpRs)	1	2	3	4	5
(d)	ODAs, recovery nurses and other paramedical staff	1	2	3	4	5
(e)	Patients	1	2	3	4	5

Q.5 To what extent do the following methods assess your clinical competence properly? *Please rate them on a 1 to 5 scale by circling the appropriate number, (where 1 = to negligible extent and 5= to a great extent).*

(a)	Opinion of Consultants	1	2	3	4	5
(b)	OSCE	1	2	3	4	5
(c)	MCQs	1	2	3	4	5
(d)	Essay Questions	1	2	3	4	5
(e)	Logbook Records.	1	2	3	4	5

Q.6 How much do you know about the following? *Please give a rating from 1 to 4 for each of the following (1 = I do not understand, 2 = I have some idea, 3 = I am fairly sure, 4 = I fully understand it)*

- a)
The criteria on which you are being assessed.

- b)
The relative importance attached to each criterion

- c)
The level of performance expected of you for each of the criteria

Part B (The Quality of the Feedback Provided by Consultant during In Training Assessment)

Q.7. What is the quality of the feedback given by consultant? *(Please tick the appropriate box).*

- | | | | |
|--------------------------------------|--------------------------|--------------------------------------|--------------------------|
| 1. It is precise in nearly all cases | <input type="checkbox"/> | 2. It is precise in most cases | <input type="checkbox"/> |
| 3. It is general in most cases | <input type="checkbox"/> | 4. It is general in nearly all cases | <input type="checkbox"/> |

Q.8 What is your perception about the accuracy of the feedback given to you by your consultant? *(Please tick the appropriate box)*

- | | | | |
|----------------------|--------------------------|-------------------|--------------------------|
| 1. Always correct | <input type="checkbox"/> | 2. Often correct | <input type="checkbox"/> |
| 3. Sometimes correct | <input type="checkbox"/> | 4. Rarely correct | <input type="checkbox"/> |

Q.9 How often do your consultant provide feedback to you in time for you to make use of it? *(Please tick the appropriate box)*

- | | | | |
|--------------|--------------------------|-----------|--------------------------|
| 1. Always | <input type="checkbox"/> | 2. Often | <input type="checkbox"/> |
| 3. Sometimes | <input type="checkbox"/> | 4. Rarely | <input type="checkbox"/> |

Q.10 When do you usually receive the feedback? *(Please tick the appropriate box)*

- | | | | |
|---------------------------------------|--------------------------|-----------------------------------|--------------------------|
| 1. On the day we have worked together | <input type="checkbox"/> | 2. Within a fortnight | <input type="checkbox"/> |
| 3. At the end of hospital attachments | <input type="checkbox"/> | 4. After I have left the hospital | <input type="checkbox"/> |

Q.11 To what extent does the feedback you receive help you to understand reasons for your professional weaknesses? *(Please tick the appropriate box)*

- | | | | |
|----------------------|--------------------------|-----------------------------|--------------------------|
| 1. To a great extent | <input type="checkbox"/> | 2. To a considerable extent | <input type="checkbox"/> |
| 3. To some extent | <input type="checkbox"/> | 4. To a negligible extent | <input type="checkbox"/> |

- Q.12. How does the feedback about your performance affect your approach to learning? *Please rate each of the following statement (1 = to a negligible extent, 2 = to some extent, 3 = to a considerable extent, 4 = to a great extent)*
- a) You direct your future learning in the areas where the consultant identifies some shortcomings _____
 - b) It makes you think about your clinical knowledge _____
 - c) It makes you think about your procedural skills _____
 - d) It makes you think about your behaviour _____
 - e) It has no effect on your approach to learning _____

Part C (The Capability of Consultants to Assess your Performance during ITA)

- Q.13. Do consultants value the following qualities in you as a trainee? *Please indicate the degree to which consultants value these qualities, by rating each of them from 1 to 4(1 = to a negligible extent, 2 = to some extent, 3 = to a considerable extent, 4 = to a great extent)*
- a) Self direction _____
 - b) Cooperative learning and collaboration _____
 - c) Reflection by you on your performance _____

- Q.14 To what extent do consultants value your opinion on the grades and feedback they have given you? *(Please tick the appropriate box)*

1. To a great extent	<input type="checkbox"/>	2. To a considerable extent	<input type="checkbox"/>
3. To some extent	<input type="checkbox"/>	4. To a negligible extent	<input type="checkbox"/>

- Q.15 Do consultants have enough experience of your work to make an assessment about you? *(Please tick the appropriate box)*

1. Often	<input type="checkbox"/>	2. Some times	<input type="checkbox"/>
3. Rarely	<input type="checkbox"/>	4. Never	<input type="checkbox"/>

- Q.16. How many consultants do you feel have sufficient competence in clinical knowledge and procedural skills to be able to assess your work? *(Please tick the appropriate box)*
- | | | | |
|---------------------------|--------------------------|---------------------|--------------------------|
| 1. Nearly all consultants | <input type="checkbox"/> | 2. Most consultants | <input type="checkbox"/> |
| 3. Some consultants | <input type="checkbox"/> | 4. Few Consultants | <input type="checkbox"/> |
- Q.17 Are most consultants competent in assessment techniques? *(Please tick the appropriate box)*
- | | | | |
|----------------------|--------------------------|-----------------------------|--------------------------|
| 1. To a great extent | <input type="checkbox"/> | 2. To a considerable extent | <input type="checkbox"/> |
| 3. To some extent | <input type="checkbox"/> | 4. To a negligible extent | <input type="checkbox"/> |
- Q.18. To what extent do you think that the assessment by consultants is affected by qualities other than professional ones? (E.g. style of dress, gender, ethnicity personal relationship with the consultant etc.) *(Please tick the appropriate box)*
- | | | | |
|----------------------|--------------------------|-----------------------------|--------------------------|
| 1. To a great extent | <input type="checkbox"/> | 2. To a considerable extent | <input type="checkbox"/> |
| 3. To some extent | <input type="checkbox"/> | 4. To a negligible extent | <input type="checkbox"/> |
- Q.19. How far does the quality of consultants’ feedback and the way it is presented to you affect your view about whether the consultant is a good trainer? *(Please tick the appropriate box).*
- | | | | |
|----------------------|--------------------------|-----------------------------|--------------------------|
| 1. To a great extent | <input type="checkbox"/> | 2. To a considerable extent | <input type="checkbox"/> |
| 3. To some extent | <input type="checkbox"/> | 4. To a negligible extent | <input type="checkbox"/> |
- Q.20. How often the process of giving and receiving feedback create interpersonal conflict with the consultants *(Please tick the appropriate box).*
- | | | | |
|--------------|--------------------------|-----------|--------------------------|
| 1. Always | <input type="checkbox"/> | 2. Often | <input type="checkbox"/> |
| 3. Sometimes | <input type="checkbox"/> | 4. Rarely | <input type="checkbox"/> |

Part D (Your Overall Opinion About In Training Assessment)

Q.21. Do you get time to reflect on your own performance? *(Please tick the appropriate box).*

- | | | | |
|--------------|--------------------------|-----------|--------------------------|
| 1. Always | <input type="checkbox"/> | 2. Often | <input type="checkbox"/> |
| 3. Sometimes | <input type="checkbox"/> | 4. Rarely | <input type="checkbox"/> |

Q.22 Does ITA increase your interest in the learning experiences you have as a part of your training programme? *(Please tick the appropriate box).*

- | | | | |
|----------------------|--------------------------|-----------------------------|--------------------------|
| 1. To a great extent | <input type="checkbox"/> | 2. To a considerable extent | <input type="checkbox"/> |
| 3. To some extent | <input type="checkbox"/> | 4. To a negligible extent | <input type="checkbox"/> |

Q.23 Does ITA decrease your interest in the learning experiences you have as a part of your training programme? *(Please tick the appropriate box).*

- | | | | |
|----------------------|--------------------------|-----------------------------|--------------------------|
| 1. To a great extent | <input type="checkbox"/> | 2. To a considerable extent | <input type="checkbox"/> |
| 3. To some extent | <input type="checkbox"/> | 4. To a negligible extent | <input type="checkbox"/> |

Q.24 How do you perceive the present form of ITA (In Training Assessment) as a whole? *(Please tick the appropriate box).*

- | | | | |
|--------------------------|--------------------------|-----------------------------|--------------------------|
| 1. It is very good | <input type="checkbox"/> | 2. It is satisfactory | <input type="checkbox"/> |
| 3. It needs some changes | <input type="checkbox"/> | 4. It needs radical changes | <input type="checkbox"/> |

Q.25. How do you perceive the present form of RITA (Record of In Training Assessments) as a whole? *(Please tick the appropriate box).*

- | | | | |
|--------------------------|--------------------------|-----------------------------|--------------------------|
| 1. It is very good | <input type="checkbox"/> | 2. It is satisfactory | <input type="checkbox"/> |
| 3. It needs some changes | <input type="checkbox"/> | 4. It needs radical changes | <input type="checkbox"/> |

Questionnaire Regarding Various Components of the Training

Direction for questions 1 to 32.

Please give your frank opinion about the extent to which you agree or disagree with each statement below. *(Please circle the appropriate answer code for each statement, key is as below)*

- | | | |
|-------|----|-------------------|
| (i) | SA | Strongly Agree |
| (ii) | A | Agree |
| (iii) | D | Disagree |
| (iv) | SD | Strongly Disagree |

(1) As a trainee I find that giving lectures & tutorials to my junior trainees enhances my own understanding of the subject material I have taught.

SA	A	D	SD
----	---	---	----

(2) Doing medical audit does not result in any improvement of medical practice.

SA	A	D	SD
----	---	---	----

(3) Giving lectures and tutorials helps me to develop communication skills.

SA	A	D	SD
----	---	---	----

(4) Publication of research work/case review/ letters depends more on writing skills and less on the quality of the work discussed in the article.

SA	A	D	SD
----	---	---	----

(5) Communication skills can be improved by training.

SA	A	D	SD
----	---	---	----

(6) Practising consultants should not do research and should leave it to academics.

SA	A	D	SD
----	---	---	----

(7) Proper management of hospitals is possible only when consultants are engaged in it because non-medical administrators can't appreciate the issues involved.

SA	A	D	SD
----	---	---	----

(8) SpRs should not be involved in medical audit and it is better if consultants perform this job.

SA	A	D	SD
----	---	---	----

(9) With conscious efforts, time can be managed so that we can find time for non-routine activities.

SA	A	D	SD
----	---	---	----

(10) There is no point in medical professionals learning statistics.

SA	A	D	SD
----	---	---	----

(11) Presenting research or work-related experiences, in seminar situations promotes better understanding of the issues.

SA	A	D	SD
----	---	---	----

(12) Leadership is an intrinsic quality of the persons hence training can not develop it.

SA	A	D	SD
----	---	---	----

(13) The process of medical audit motivates concerned people to achieve required standards.

SA	A	D	SD
----	---	---	----

(14) Practising consultants should not teach trainees because it interferes with their principal responsibility of treating patients.

SA	A	D	SD
----	---	---	----

(15) Reading medical journals is an effective way to learn from the experiences of others.

SA	A	D	SD
----	---	---	----

(16) It is not possible to change the way people behave as a member of a team after they are 25 years of age.

SA	A	D	SD
----	---	---	----

(17) Management training improves our ability to manage.

SA	A	D	SD
----	---	---	----

(18) Presenting research or work-related experience in seminar situations is merely a publicity exercise.

SA	A	D	SD
----	---	---	----

(19) Doing research inculcates a habit of scientific enquiry in consultants which helps them learn from the experiences of routine practice.

SA A D SD

(20) There is no point in attending courses on teaching/training skills since teaching/training is merely common sense.

SA A D SD

(21) Training/Education should be the job of the practising consultants, because they have real experience.

SA A D SD

(22) Consultants should not be given management jobs like preparing rotas, timetables etc. since administrative staff can perform these jobs.

SA A D SD

(23) Reading medical journals is an effective way of getting information regarding developments taking place in an area of interest.

SA A D SD

(24) Management is an art born of common sense, hence there is no need for SpRs to undergo training in management techniques.

[illegible]

(25) The process of writing a paper/case review/letter on an issue helps to clarify one's views about that issue.

SA A D SD

(26) A SpR's working day is so chaotic that there is a little scope for using time management techniques.

SA A D SD

(27) Process of performing medical audit, helps SpRs to understand better the accepted standards of medical practice and practical problems in achieving them.

SA A D SD

(28) Communication skills are an intrinsic quality of the individual hence training can't develop them.

SA A D SD

(29) Consultants need training in 'techniques of teaching/training' so that they can teach/train SHOs/SpRs properly.

SA

(30) Reading medical journals is of little use for practising doctors since most of The papers published are theoretical and academic in nature.

SA

(31) Behavioural training can change the pattern of behaviour of the SpRs who do not behave well as a member of a team.

SA

(32) I learn more from working in clinics and operating theatres than from teaching and training juniors.

SA

Q (33) Are you some times unable to get the full co-operation of other team members when you work as a team leader? Please answer, yes or no.

If your answer is yes then please answer the question number 33A.

Q (33A) In your opinion what is the relative importance of the factors responsible for your not getting co-operation from your team mates? *Please rank the factors below in order of importance (5 = most important, 4 = second most important, 3 = third most important and so on)*

- | | | |
|-------|--|-------|
| (i) | Your team mates don't have proper attitudes. | ----- |
| (ii) | There is a lack of proper communication between
You and team members. | ----- |
| (iii) | There is a lack of proper communication
Amongst team members. | ----- |
| (iv) | You lack leadership qualities. | ----- |
| (v) | You have been asked to lead without giving enough powers/authority to deal
with the team members effectively. | ----- |
| (vi) | Any Other (please specify) | ----- |

Q (34) Some times we are unable to make good joint decisions, even when we have discussions amongst colleagues. In your opinion what is the relative importance of various factors responsible for poor decisions? *Please rank the factors given below in order of importance (i.e. as 5 = most important, 4 = second most important, 3 = third most important and so on)*

- (i) People concerned do not have enough clinical knowledge -----
- (ii) We don't gather enough information before taking decisions -----
- (iii) People concerned can't communicate properly with each other. -----
- (iv) Some people become too adamant about their views. -----
- (v) Some people don't want to involve themselves in joint decisions. -----
- (vi) Any other (please specify) -----

Q. (35) In your opinion what is the relative importance of the factors responsible for poor communication between you and your patients? *Please rank the factors given below in order of importance (i.e. as 5 = most important, 4 = second most important, 3 = third most important, and so on)*

- (i) Patients lack communication skills. -----
- (ii) Patients ask for irrelevant information (i.e. information which is not important for them from clinical point of view.). -----
- (iii) Patients have their own views about their disease and its treatment. -----
- (iv) You don't have enough time for talking with patients. -----
- (v) You lack communication skills required to deal with difficult patients. -----
- (vi) Any other (please specify) -----

Thank you very much for your co-operation, your views will help us to reform the curriculum in coming years.

Please also provide following information so that if required researcher could contact you for better understanding of the issues.

Name _____
SpR No. _____ SpR Grade _____
College _____ City/Town _____
E-mail _____ Phone(R) _____
Postal Address: _____

Questions to be Raised with SpRs During Non-Directive Interviews to Generate Discussion.

Note: All questions from following list were not asked from every SpR interviewed, these questions were raised only to generate discussion as and when required. Nor any particular sequence was followed in asking questions; the conversation was allowed to take its own course.

- (i) Have you seen portfolio format, if yes, what is your general perception of it? (If no, why it is so?)
- (ii) Do you know why it has been introduced?
- (iii) Did you receive some orientation about its concept, purposes and method of use?
- (iv) Did you complete some sections of it, if yes, what is your experience with it?
- (v) How this process of preparing portfolio makes you think about your performance as a SpR? Does it help you in some way? (in planning your training, appreciating your weaknesses and strengths)
- (vi) If you have not completed most sections of it, why it is so? (Is it not interesting enough? Are you not able to find the time? Are you not able to organise and present your views? Are you not able to find proper words to describe your experiences?)

- (vii) Do you need some guidance to complete it?
- (viii) Would some examples of portfolios, already completed, be of help to you in preparing your own portfolio?
- (ix) Do you have some doubts about its utility or purpose? (Whether, you find it not of much use for learning or assessment?)
- (x) What do you think about its structure and format?
- (xi) Would you like to share your portfolio with your colleagues to discuss your experiences, problems faced by you, and issues your portfolio has raised about your profession?
- (xii) What do you think about existing assessment system? (RITA, appraisal, logbooks and consultants' reports)
- (xiii) How do you feel about compatibility of PBA with existing assessment system?
- (xiv) How is portfolio different from other methods of assessment you have experienced?
- (xv) Would you like to ask any thing more about this research? Please feel free to ask.

Questions to be asked during focused interviews

Note: Following is the list of questions, out of which questions were asked as applicable to particular SpR based on content analysis of his/her portfolio and his first interview. (If some SpR has not provided his/her portfolio or not given first interview then some of the questions from the Appendix ix were also be asked)

Q.1: Since now you have filled in considerable part of your portfolio, what is your general view about it?

- (a) Size
- (b) Effectiveness for learning
- (c) Effectiveness for assessment

Q.2: When did you update it last time?

Q.3: How frequently you update it?

Q.4: Do you remember how many hours were needed to fill in it first time?

Q.5: Do you remember how many hours were needed to update it second and third time?

Q.6: Are there any parts of portfolio, which you wanted to complete, but you could not because of some reasons? (such as)

- (a) Communication problem
- (b) Time problem
- (c) Controversial nature

Q. 7: Do you think that some kind of guidance might have helped you?

- (a) Peers
- (b) Consultant

Q.8: How do you feel about preparing for Royal College exams and simultaneously preparing your portfolio? (only for junior SpRs)

Q.9: How do you see utility of portfolio with reference to your training?

Q.10: How do you see its role as a self-assessment tool?

Q.11: To what extent the process of preparation of portfolio has made you to reflect on your experiences, which you have described in your portfolio?

Q.12: How useful you find it in RITA?

Q.13: How useful you find it in Appraisal?

Q. 14: What difference you see in learning from first hand experience and from the books and other print material?

Q. 15: To what extent do you feel that experience helps in developing your theoretical knowledge base?

Q.16: One of the purposes of asking SpRs to conduct research is to develop habit of scientific enquiry. To what extent do you think that habit of scientific enquiry may help you learn from your day to day experience?

Q.17: To what extent consultants are able to communicate to trainees knowledge acquired by experiences that is practical knowledge, which is not otherwise available in books etc?

Q.18: How do you perceive the role of non-clinical component of your training in helping you to become a good professional?

Q. 19: What do you mean by professionalism as applied to doctors?

Q. 20: Are you are able to find enough time for non-clinical activities, which you want to pursue?

Q.21: In your opinion, how can SpRs mange more time for these activities?

Q.22: How do you value involvement of SpRs and consultants in management and administrative jobs?

Q 23: In your opinion how does medical audit helps you in improving your practice?

- (a) Learning about standards
- (b) Improvement in practice

Q24: To what extent reading journals helps you in day to day practice?

Q25: Do you find enough papers based on reflection on day to day practice?

Q 26: How do you feel about you publishing papers? Do you find it comfortable? If not what are the problems?

Q.27: In your opinion how are the communication skills of your colleagues in general? I mean other SpRs in the speciality of anaesthesia.

Q 28:How do you think regarding improving communication and interpersonal skills of some SpRs, who are weak in these skills?

- (a) By Training
- (b) By Counselling
- (c) By self-reflection

Q 29:How do you think regarding improving leadership and managerial qualities of SpRs?

Q 30: Do you want to know any other thing about Portfolio? Please feel free to ask any questions regarding it.

Appendix: xi

A Brief Summary Of Portfolios Prepared By SpRs

Portfolio of SpR No. One

Trainee was in his fourth year of specialist training and member of seven professional societies and had subscribed six journals. Passed both primary and final of Royal College exams but had not furnished details of when and in how many attempts he passed them.

He had undergone pre registration training in U.K. in three specialties namely Orthopaedic surgery, General Surgery and Medicine, post-registration specialist training for one year in 'accident and emergency' and one year in 'paediatrics and SCBU'. But he had not provided details of these training (May be because he had undergone these training before 1994). However provided details of post registration training in anaesthesia in U.K. for seven years (three years SHO and four years SpR1 and SpR 4). Key responsibilities of the post, special skills and knowledge gained during these training are described in detail. Trainee informed during interviews that before going to final year of training he will complete one years research fellowship and hence preparing portfolio is not his priority. Provided summary of educational courses and meetings attended but have not evaluated them. Evaluated one audit conducted and its presentations in detail. Described in detail the research project undertaken and training programmes attended to hone the researching skills. Remaining sections of the portfolio were left unfilled.

Reflection: Trainee had reflected minimally about knowledge and skills gained during training. And since he had filled only parts related to past training and research project undertaken, there was very little scope for reflection.

Portfolio of SpR no. 4

Trainee was in his final year of specialist training and member of six professional societies and had subscribed four journals. She had passed both primary and final part of Royal College exams, took two attempts to pass the first part.

She had undergone pre registration training in U.K. in general surgery and medicine for one year, post-registration specialist training for one and half years i.e. six months each in 'general medicine' 'neonatal paediatrics' and 'accident and emergency'. She had provided details of these training. Provided details of post registration training in anaesthesia in U.K. for six years (two years SHO and four years SpR1 to SpR 4). But key responsibilities of the post, special

skills and knowledge gained during these training are provided. Attended sixteen educational courses and meetings in last seven years but not evaluated any one of them. Also contributed seven times in last four years in educational meetings in form of presentations, and tutorials. Out of these none were evaluated. Details of four audit meeting attended in last two years are provided and out of these three meetings are evaluated in detail. Conducted four audits and described them very briefly and not evaluated any one of them. Sections related to audit meetings attended were left blank. Published six papers in last six years, conducted two postal surveys and one formal research but not evaluated any one of them. Had shown wide interest in teaching activity and passed Certificate of Medical Education for Anaesthesia and was also writing an anaesthesia workbook.. Undertook management responsibilities such as preparation of rotas, managing forum for anaesthetists and chief resident. Remaining sections of the portfolio about logbook summary, details of critical incidents and personal developmental plan were not furnished. Moreover not filled any sections related to teamwork, time management and communication skills.

Reflection: She had reflected on nature and progress of training, but neither on the individual performances such as teaching sessions taken, medical audits conducted nor on utility of educational and audit meetings attended. However, it can be inferred from her views that she had a concern for improving the status and popularity of the profession by improving the practice.

“My particular areas of interest in education are increased recognition of value of anaesthesia in the undergraduate curriculum and the development of the concept of house officer in anaesthesia. My research reflects this interest and with this in mind, I am currently co-authoring a pilot workbook to guide senior medical students or house officers through an attachment to a department of anaesthesia.” (page no 31 of the portfolio)

Portfolio of SpR no. 7

Trainee was in second year of specialist training and member of two professional societies and had subscribed two journals. Could pass primary of royal college exams in first attempt but not the final part. Had undergone pre-registration training in general surgery and general medicine for six month each. And specialist training in ‘accident and emergency’, ‘paediatrics’ and ‘General Medicine’ for total one and half year.

He had given details of pre-registration training, post registration training (none anaesthetic) and U.K. anaesthetics training for two years as SHO and SpR grade one, and also had described the work done during training in detail, but responsibilities held and special skills and knowledge gained during these training had been not mentioned at most places. Evaluated in brief the failure attempts for Royal College Exams. Attended seven educational meetings/courses in last four years and evaluated one of them briefly. Contributed 10 times in

last five years in educational meetings in form of presentations, lectures and tutorials but evaluated only one presentation and tutorials very briefly.

Similarly attended four audit meetings but not evaluated them. Evaluated one audit project completed and its presentation. Had been associated with teaching and evaluated one teaching session very briefly. Most of the remaining sections such as teamwork, time management and communication skills are left unfilled. Logbook summary is provided but critical incidences and personal developmental plan are left blank.

Reflection:

Reflection is very minimal and is restricted to the progress in learning. However at reflection on other aspects like communication and management skills also took place at some places while reflecting on progress of learning, for example trainee reflects as below at one place:

“ Gained confidence in the management and investigation of common paediatric medical and surgical conditions. I developed my communication skills with parents and children. Work on the maternity unit and the Special Care Baby Unit gave me valuable experience in the management of neonates. ”

Portfolio of SpR no. 10

Trainee was in his second year of specialist training and member of three professional societies and had subscribed three journals. Passed both primary and final part of Royal College exams in first attempts.

He had undergone pre registration training in U.K. in general surgery and medicine for one year, post-registration specialist training for two years in ‘Medicine. He had provided details of these training in very brief. Provided details of post registration training in anaesthesia in U.K. for four and a half years (two and a half years SHO and two years as SpR1 to SpR 2). Key responsibilities of the post, special skills and knowledge gained during these training are described in brief. Attended twenty seven educational courses and meetings in last six years and evaluated six of them in detail. Also contributed three times in last three years in educational meetings in form of presentations, out of these presentations one presentation is evaluated. Attended nine audit meetings and evaluated three out of these. Conducted three audits and all of these audits and their presentations evaluated in detail. Remaining sections of the portfolio about research, educational responsibility, publications, management meetings etc were left unfilled. Neither filled any sections related to teamwork, time management and communication skills nor provided critical incidents and personal developmental plan. However provided logbook summary. The portfolio was different from other portfolios in the sense that he had evaluated more number of educational meetings (6 no), audit meetings (3) and audit projects undertaken (3), while in most cases only one of these were evaluated.

Reflection: Trainee had reflected minimally about knowledge and skills gained during training. While discussing about medical audits reflected on practice. At one place also accepts the limitations of the medicines as below:

“However, the case for alternatives appears far weaker than the proffered risk of continued use of nitrous, especially as environmental exposure is principally a problem of midwives, and no drug carries no risk.” (Page no. 27 of portfolio no. I)

As far as reflection on learning is concerned, it was limited to nature and amount of learning, at some places, columns related to what went less well were left blank, while columns related to what went well were filled, it indicates problems in finding weaknesses ins self as compared to strengths.

Portfolio of SpR no 11

Trainee was in his final year of specialist training and member of four professional societies and had subscribed four journals. Passed both primary and final part of Royal College exams in first attempts.

He had undergone pre registration training in U.K. in general surgery and medicine for one year, post-registration specialist training for total one year in ‘accident and emergency’ and in ‘Neonatal ICU’. He had provided details of these training in very brief. Provided details of post registration training in anaesthesia in U.K. for five years (two years SHO and three years SpR1 to SpR 3). Key responsibilities of the post, special skills and knowledge gained during these training are described in brief. Attended eleven educational courses and meetings in last six years and evaluated one of them in detail. Also contributed eleven times in last three years in educational meetings in form of presentations, and tutorials. Out of these presentations only one case report presentation is evaluated. Details of audit meeting attended is not provided but two audit conducted and their presentations are evaluated in detail. He described in detail the research project undertaken and its presentations. Also provided plans for future research, and also evaluated training programmes attended to hone the researching skills. Also described very briefly the one management responsibility undertaken last year. Remaining sections of the portfolio about educational responsibility, publications, management meetings etc were left unfilled. Neither filled any sections related to teamwork, time management and communication skills nor provided critical incidents and personal developmental plan. However provided logbook summary.

Reflection: Trainee had reflected minimally about knowledge and skills gained during training. And since he had filled only parts related to past training and research project undertaken, there was very little scope for reflection. It can be said that reflection was limited to amount and nature of learning in totality.

Portfolio of SpR no 12

Trainee was in his fourth year of specialist training, had membership of four professional societies and subscription of three journals. Passed both primary and final Royal College exams but had not furnished that in how many attempts he passed them.

He had undergone pre registration training in U.K. General Surgery and Medicine, post-registration specialist training for one year in 'General Medicine'. Provided details of these training and of post registration training in anaesthesia in U.K. for five years (two years SHO and three years SpR1 and SpR 3). Key responsibilities of the post, special skills and knowledge gained during these training are described in brief. Remaining sections of the portfolio were left unfilled.

Reflection: Trainee had reflected minimally about knowledge and skills gained during training. And hence he had reflected negligibly in his portfolio.

Portfolio of SpR no 13

Trainee was in her third year of specialist training and member of three professional societies and had prescribed three journals. Passed both primary and final of Royal college exams in first attempt.

She had undergone one years' specialist training in 'Accident and Emergency' and five years training in anaesthesia (two years as SHO and three years for SpR1 to SpR3). She also had overseas training for three years in Australia in different specialties. In her portfolio, she had given the details of these training and reflected upon knowledge and special skills gained during this period. Attended 34 educational meetings in last five years. Contributed 14 times in last 3 years personally in educational meetings by giving presentations (3 times), lectures (6 times) and tutorials (6times). However, she had neither evaluated meetings attended nor any personal contributions made in those meetings. She had attended 11 full medical audit meetings and 12 lunch time audit meetings but had not evaluated them. She had conducted one medical audit and had also presented it, this audit and its presentation had been evaluated in detail. Undertook research training two times in last four years and attended one research meeting., she had also evaluated the research meeting she had attended. Written one article for publication and it is under editing at the moment, evaluated this article and one review article in detail. Attended one training programme about education and also evaluated this programme. Undertook three different types of management responsibility in last four years and evaluated one of them. Also attended one training programme to hone the management skills and also evaluated that training. Provided logbook summary and prepared the detailed

personal development plan. It can be said that this portfolio was one of the maximum filled portfolios. Yet, sections related to team working, communication skills and time management and critical skills were not attempted.

Reflection:

Reflection was limited to nature of training and progress in it. There was very little reflection on practice and values. She had filled most of the sections of the portfolio but not in great detail. Moreover important sections like critical incidences were left blank. However, she had evaluated the medical audits conducted and training programmes attended.

Portfolio of SpR no. 15

Trainee was in her fourth year of specialist training and was member of three professional societies and had subscription of three journals. Passed primary and final Royal College exams but required two attempts to pass final part.

She had not given details of pre registration training in U.K., post registration training (non-anaesthetic) in U.K. and post registration anaesthetic training in U.K. in year 1 to 2 (years as SHO). However given details of post registration anaesthetic training in year 3 to five (three years as SpR1 to SpR 3). Key responsibilities of the post, special skills and knowledge gained during these training are also not described. In her interviews also she had indicated that it is very difficult for her to fill portfolio retrospectively. Attended ten educational meetings in last year but not evaluated any one. Not kept record of audit meetings attended but evaluated minimally one audit conducted. Did not undertake any research project, but attended one short course on research methods and conducted four literature reviews. All other sections of the portfolio related to management responsibility, contribution in education/training of juniors, publications etc were left unfilled. Neither evaluated any case about teamwork, communication problem or time management nor provided logbook summary and details of critical incidents. It can be said that this portfolio was one of the least filled portfolios.

However, she had filled a section, which is filled by very few SpRs, namely section on personal development plan.

Reflection: Trainee had not reflected at all, she had also indicated her disliking for the portfolio in interviews with her.

Portfolio of SpR no 18

Trainee was in his second year of specialist training and was member of three professional societies and had subscription of three journals. Passed primary and final Royal College exams. Cleared final part in first attempt but required two attempts to pass primary part.

This trainee was from Indian subcontinent and provided details of overseas training of one year in general surgery. He had undergone four years overseas training in anaesthesia and also described that in detail. Provided details of post registration anaesthetic training in U.K. in year 1 to 2 (2 years as SHO) and year three to four (two years as SpR1 to SpR 2). Key responsibilities of the post, special skills and knowledge gained during these training are also described in detail. He also evaluated his attempts in Royal College exams and reflected on causes of failure. Attended ten educational meetings in last three years but not evaluated any one. Was neither involved in teaching/education of juniors nor in audit conduction. He informed during interviews that now he intend to involve himself more in non-clinical activities since he has passed both parts of Royal College Exams. All other sections of the portfolio related to audit meeting attended, management responsibility, contribution in education/training of juniors, publications etc were left blank. Neither evaluated any case about teamwork, communication problem or time management nor provided logbook summary and details of critical incidents. Section on personal development plan was also not prepared. It can be said that this portfolio was also one of the least filled portfolios.

Reflection: Trainee had not reflected at all as for him passing exams rather than preparing portfolio was main priority.

Portfolio of SpR no. 19

Trainee was in her fourth year of specialist training. She had not given details about memberships of the professional societies but had subscribed two journals. Passed primary part of Royal College exams in first attempt but took two attempts to pass the final part. She had evaluated her unsuccessful attempt for final part of the exam.

She had undergone pre registration training in U.K. in general surgery and medicine for one year, post-registration specialist training for one year in 'accident and emergency' and another one year in 'Care of the Elderly' and 'Endocrinology'. She had provided details of these training. Had undergone post registration training in anaesthesia in U.K. for five years (two years SHO and four years SpR1 to SpR 3). Attended twelve educational courses and meetings in last five years but not evaluated any one of them. But she had neither provided details of any of these training nor evaluated any one of them. She had not filled rest of the portfolio. It was one of the least filled portfolio.

Reflection: There was no scope of reflection as trainee had filled only few of the initial sections of the portfolio.

Portfolio of SpR no 20

Trainee was in his final year of specialist training and member of 5 professional societies and had subscribed 5 journals. Passed primary Royal College exams in first attempt, but took two attempts to pass final part. He belonged to Indian Subcontinent and had undergone three year's overseas training (two years post registration training in the specialty of surgery).

He had given details of overseas pre registration and post registration training, post registration training in U.K. for six years (two years SHO and four years SpR1 to SpR 4). Key responsibilities of the post, special skills and knowledge gained during these training are described in detail. But not evaluated unsuccessful attempt at the final of FRCA exam. Contributed thirteen different teachings sessions but not evaluated any of this. Rest of the portfolio format was not filled. (This SpR informed me during interviews that he has nearly completed his training and hence there is no need for him to complete the portfolio. This shows that external motivation rather than need for improvement governed the preparation of portfolio in this case.)

Reflection: Since portfolio was nearly empty, there were very little evidences of reflection.

Portfolio of SpR no 21

Trainee was in his second year of specialist training, member of eight professional society and had subscribed six journals. Passed both primary and final of Royal College Exams in first attempt.

He had undergone overseas post registration training for one year in general medicine and general surgery and four years overseas training in anaesthesia. He had provided detailed summary of progress of learning during these training and described the key responsibilities of the post and special skills and knowledge gained.

In U.K. he had been trained in anaesthesia for six years (three years as SHO and three years as SpR 1 to 2). His training was discontinued for five years namely from 1995 to 2000. He had provided summary of these training along with special skills and knowledge gained and key responsibilities of the post in detail. In six years period of training he had attended sixteen courses and educational meetings out of these meetings evaluated nine meetings in brief. Contributed six times in educational meetings by giving lectures (three times), presentations (twice) and tutorial (once) also evaluated these contributions in detail. Evaluated in detail one audit project undertaken and presented it, also evaluated one audit meeting attended by him. Prepared one research proposal which was under consideration of ethical committee, evaluated this proposal in detail. Also developed one idea for research. Attended one training to develop skills in the area of research and evaluated this training. Published one article. Taught SHOs

preparing for primary of FRCA exams. Provided logbook summary and evaluated two critical incidents and gave personal development plan. It was a fairly filled portfolio and most of the sections of the portfolio was filled. However, sections related with the teamwork, communication skills and time management were left unfilled.

Reflection: Evaluation of critical reflection had resulted in some kind of reflection on practice for example he described his learning from the experience he had from one critical incident as:

“It could have been prevented by possibly keeping the patient under deeper plain of anaesthesia, I will remain extra careful with child having history of recent chest infection and croup. However, will continue to take Laryngeal mask out in children under deep plain of anaesthesia.” (Page 49 of portfolio)

However at most of the other places reflection was limited to progress in learning and nature of learning in totality.

Portfolio 0f SpR no 22

Trainee was in his third year of specialist training and member of one professional society and had subscribed two journals. Passed both primary and final part of Royal College exams in first attempts.

He had undergone pre registration training in U.K. in general surgery and medicine for one year, post-registration specialist training for two years in ‘accident and emergency. He had provided details of these training. Provided details of post registration training in anaesthesia in U.K. for six years (three years SHO and three years SpR1 to SpR 3). Key responsibilities of the post, special skills and knowledge gained during these training are described in detail. Attended thirteen educational courses and meetings in last four years and evaluated eight of them in detail. Also contributed ten times in last three years in educational meetings in form of presentations, and tutorials. Out of these presentations six presentation, one lecture and one tutorial are evaluated. Details of four audit meeting attended in last two years are provided and out of these three meetings are evaluated in detail. Conducted one audit and evaluated that along with its presentation in detail. He described in great detail the one research project undertaken and its presentations and one undergoing research project. Also provided plans for future research, and also evaluated two training programmes attended to develop the researching skills. Tried to publish one article based on his research but was rejected by BJA. Also described very briefly the one management responsibility undertaken last year. Remaining sections of the portfolio about educational responsibility, publications, management meetings etc were left unfilled. Provided logbook summary and details of critical incident and

evaluated it and also gave personal developmental plan in detail. Yet, this SpR had not filled any sections related to teamwork, time management and communication skills.

Reflection: This was the one of the most detailed portfolio out of the portfolios received from SpRs. Trainee had also reflected about the quality of teaching learning process apart from the reflection on knowledge and skills gained during training. Trainee had also reflected on the problems faced during audit, at one place he reflected as:

“Despite the fact that over 1100 anaesthesia were given in this period only four forms filled in. It was felt that this number represented major underreporting and the format of the audit will be changed and the audit repeated. The audit failed to set standards at the outset. The data collection form was too detailed and may be why there was underreporting. The fact that audit had failed meant that practice could not be changed until a more powerful audit had been developed.” Page 62 of portfolio

However, even this SpR who had filled in detail most of the sections and reflected on most of the issues had not filled up sections related to time management, communication skills and teamwork. This shows that SpRs are most averse towards these sections. The Reasons for this disinclination are discussed with SpRs during interviews with them.

Portfolio of SpR no 24

Trainee was in her third year of specialist training and member of three professional society and had subscribed three journals. Passed both primary and final part of Royal College exams in first attempts.

She had undergone pre registration training in U.K. for one and a half year for six month each in ‘general surgery’, ‘orthopaedic surgery’ and ‘general medicine’. She also did post registration training for one and half year for six month each in ‘cardiothoracic surgery’, ‘accident and emergency’ and ‘ENT’. She had provided details of these training and had also described the skills and knowledge gained. Provided details of post registration training in anaesthesia in U.K. for three years (two years SHO and third year as SpR1). She had been to Australia for anaesthetic training for one and a half year. Provided details of this training with key responsibilities of the post and special skills and knowledge gained. Attended eight educational courses and meetings in last seven years but not evaluated any one of them. Also contributed once in educational meetings by giving one lecture and also evaluated this contribution. Attended eight audit meetings but not evaluated any one of them. Conducted one audit and evaluated that but not presented it. Sections related to research projects undertaken and research training attended are left blank. Published one research paper but other sections related to research are left blank. Undertook education teaching responsibilities four times but not

given details of them. Sections related to management training, management responsibility and meetings about management are left blank. Neither provided logbook summary nor details of any critical incident. Similarly sections related to personal developmental plan, teamwork, time management and communication skills were left unfilled.

Reflection: Trainee had reflected about the quality of teaching learning process apart from the reflection on knowledge and skills gained during training. However, reflection was limited to overall progress in training and its nature, while many aspects of the practice or profession were not reflected upon. This was one of the lesser filled portfolio amongst the portfolios received by me.

Portfolio of SpR no 25

Trainee was in his fourth year of specialist training, had membership of six professional societies and subscription of three journals. Passed primary and final Royal College exams in first attempt.

He had given details of pre registration training in U.K., post registration training (non-anaesthetic) in U.K. and post registration anaesthetic training in U.K. in year 1 to 6 (two years SHO and four years SpR1 and SpR 4). Key responsibilities of the post, special skills and knowledge gained during these training are described in detail. Evaluated in detail one out of twenty courses/ educational meetings attended. Contributed four different teachings sessions, out of this one each of lecture, presentation and tutorial evaluated in brief, but not replied to the question what went well and not so well? Not kept record of audit meetings attended but evaluated one audit conducted and its presentations minimally. Conducted one research and evaluated it in detail. Also gave lectures, seminars to juniors and helped them in viva-practice. Out of this evaluated one lecture and discussed own performance. Also attended ATLS instructors course and evaluated it. Involved in management duties but not evaluated them. Attended two short programmes to develop managing skills and evaluated one programme in brief. Evaluated a case about teamwork and leadership in brief. But not evaluated any case of communication problem or time management. Surprisingly provided no logbook summary, critical incidents, and personal development plans.

Reflection: Trainee had reflected properly about knowledge and skills gained during training. However, reflected minimally about own strengths and weaknesses in teaching. At one place challenged the present practice by giving tutorial to emphasise that “identification and early management of sick patients can also be done by observing simple physical signs rather than

high tech monitoring”. Discussed about weakness and strengths of training programmes attended in different areas.

Reflected about a teamwork situation and appreciated that, problems were mainly because of lack of proper communication.

Portfolio of SpR no 27

Trainee was in his third year of specialist training and member of six professional societies and had subscribed two journals. Passed primary Royal College exams but required two attempts to pass the final part.

He had not undergone pre registration training in U.K. but had eleven years overseas experience of surgery and anaesthesia in Indian Subcontinent at different hospitals. At U.K. he had post-registration specialist training in anaesthesia for four years (one year as SHO and three years as SpR 1 to 3). He had provided detailed information about these training. Key responsibilities of the post, special skills and knowledge gained during these training are also described thoroughly. Provided summary of twelve educational courses and meetings attended in last six years, out of these, only one was evaluated. In last six years contributed thirteen times in educational meetings in the form of tutorials, lectures and presentations. Out of these evaluated one of each type. Attended eleven audit meetings in last four years but not evaluated any one of them. Evaluated one medical audit conducted and its presentations in detail. Described in brief the research project undertaken and one research idea being developed. Also evaluated one training programme attended to hone the researching skills. Had not published any article but evaluated one journal article read in the current year. Taught juniors in three different programmes in last four years, evaluated one teaching session. Described and evaluated in brief one management responsibility carried out. Remaining sections of the portfolio related to time management, communication skill, and teamwork were left unfilled as in most of the other portfolios. Similarly personal development plan was not prepared and section about critical incidents was left blank. However, logbook summary was provided.

Reflection: Trainee had reflected minimally and this reflection was limited to progress in training and nature of learning namely about knowledge and skills gained during training.

At some places trainee had reflected about his performance in meetings, presentations and audits but this reflection is neither in-depth nor detailed.

Portfolio of SpR no 28

Trainee was in his second year of specialist training and member of two professional societies and had subscribed five journals. Passed both primary and final part of Royal College exams. Required two attempts to pass primary but required passed final in first attempt.

He had undergone pre registration training in U.K. in general surgery and medicine for one year, post-registration specialist training for two years in general 'Medicine'. Also worked overseas in anaesthesia for one year at New Zealand and provided summary of that also. He had provided details of these training in very brief. Provided details of post registration training in anaesthesia in U.K. for four years (two years SHO and two years SpR1 to SpR 2) in very brief. But key responsibilities of the post, special skills and knowledge gained during these training were not given. Also availed fellowship for six months in 'paediatric intensive care' and described about it in very brief. Attended twelve educational courses and meetings in last three years and evaluated three of them in brief. Also contributed thirteen times in last three years in educational meetings in form of presentations, and tutorials but none of them was evaluated. Attended nine audit meeting in last two years but not evaluated any one of them. Conducted two audits but not evaluated them and their presentations properly. Sections related to research projects and publications were left blank. However attended one taught course on research in medicine and conducted three literature reviews. Also attended one two days course to hone the management skills. Undertook educational responsibility on three different occasions in last two years. Also attended one training programme to improve teaching skills and also evaluated it. Neither filled any sections related to teamwork, time management and communication skills nor provided critical incidents and personal developmental plan. However provided a logbook summary.

Reflection: Trainee had reflected minimally about knowledge and skills gained during training. And since he had filled only parts related to past training and personal contributions in educational activity, there was very little scope for reflection. It can be said that reflection was limited to amount and nature of learning in totality. However at some places reflection is also about the utility of the training.

Portfolio of SpR no 29

Trainee was in his third year of specialist training, had membership of 4 professional societies subscription of 3 journals. Passed primary Royal College exams in first attempt, but took three attempts to pass final part. Had undergone one year's overseas training.

He had given details of pre registration training in U.K., overseas post registration anaesthetic training for one year, pre registration training in U.K. in year 1 to 4 (two years SHO and two years SpR1 and SpR 2). Key responsibilities of the post, special skills and knowledge gained during these training are described in detail. Evaluated unsuccessful attempts at the final of FRCA exams. Evaluated in detail one out of ten courses/ educational meetings attended. Contributed five different teachings sessions, out of this one each of lecture, presentation and

tutorial evaluated in detail, also replied to the question what went no so well? It might have generated some introspection. Not kept record of audit meetings attended but evaluated the last audit meeting attended. Evaluated one audit conducted and its presentations properly. One short programme attended to develop leadership skills evaluated in detail. Surprisingly provided no logbook summary, critical incidents, and personal development plans.

Reflection: Trainee had reflected minimally about knowledge and skills gained during training. However, reflected in detail about his own strengths and weaknesses in teaching and improved upon them in subsequent sessions.

Portfolio of SpR no 30

Trainee was in third year of specialist training and member of three professional societies and had subscribed four journals. Have passed both parts of royal college exams and took three attempts to pass the final part. Had undergone pre-registration training in Indian subcontinent and post-registration anaesthetic training in U.K for 5 years which includes two years as SHO and three years as SpR grade one to three. But had neither given details of these training nor described the responsibilities held and special skills and knowledge gained during these training. Attended six educational meetings/courses in last three years but not evaluated any one of them. Rest of the portfolio namely sections related to audit, research, educational responsibility, publications, management responsibility, teamwork, time management and communication skills are left unfilled. Similarly logbook summary, critical incidences and personal developmental plan are completely left blank.

Reflection:

Since most of the parts of the portfolio were left empty there was very little scope of reflection

Portfolio of SpR no 31

Trainee was in second year of specialist training and had additional degree of M.A., D.Phil, membership of three professional societies and had subscribed four journals. Could pass primary of royal college exams in first attempt. Had been SHO in medicine, surgery and ITU specialty for one year each. And SHO for three years in anaesthesia.

He had given details of pre-registration training, post registration training (none anaesthetic) and U.K. anaesthetics training for SHO and SpR grade one, and also had described responsibilities held and special skills and knowledge gained during these training. Described in detail Medical Research Council studentships and fellowship held respectively for three years and six months. Attended nine educational meetings/courses in last three years and presented two times but had not evaluated even any one. Similarly attended three audit

meetings but not evaluated them. Neither done any audit nor research project during anaesthesia training. Presented and published many papers during Medical Research Council studentship but not given details of them. Had been associated with teaching but not evaluated any teaching session. Reported four critical incidents in last one year but not evaluated any. Prepared in detail personal development plan. However, no logbook summary is provided.

Reflection: Since most of the learning experiences were not evaluated there was very little scope of reflection. However trainee had described in detail the training he had undertaken and knowledge and skills gained during these training, this description had generated some reflection about the nature of learning in totality and progress made by him in acquiring professional knowledge and skills.

Portfolio of SpR no 32

Trainee is in second year of specialist training and member of five professional societies and had subscribed four journals. Had already passed both of the Royal College exams. This trainee had its basic medical degree from Africa.

He had given details of U.K. anaesthetics training for SHO for three years and staff grade for two years and SpR grade one, along with details of overseas training and employment. He had also described in brief responsibilities held and special skills and knowledge gained during these assignments. Also described in detail overseas anaesthetic training undergone for one year. Evaluated preparation for part1 and part 2 of Royal College Exams. One out of six courses/ educational meetings were evaluated in detail. Also properly evaluated personal contribution of lectures and tutorials conducted for juniors. Evaluated one audit project undertaken and its presentation in detail. Gave summary and importance of two articles read in last one year. Described and evaluated in brief one management responsibility under taken. Provided logbook summary. Described in brief and evaluated one critical incident. Good feature of his portfolio was that he has attached only those sections, which were applicable to him.

Reflection: There was minimal reflection about learning during training and about shortcomings in teaching done by him. However evaluation of one critical incidence has generated some kind of reflection on procedures adopted by him and has resulted change in his practice in his words:

“On questioning her daughter, a history of previous postoperative vomiting was obtained.I am therefore, now more aggressive in intubating for patients for emergency procedures, especially where a clear history can not be obtained from the patient.” (Page 30, portfolio no. 32)

Portfolio of SpR no 33

Trainee was in his final year of specialist training and had additional degree of B.Sc. (History of medicine), membership of 6 professional societies and had subscribed 4 journals. Passed Royal College exams in first attempt.

He had given details of U.K. anaesthetics training in year 3,4, and 5 but not for year 1 and 2. Special skills and knowledge gained described for year 5 only. 3 out of 5 courses/ educational meetings were evaluated in detail. 4 out of 4 personal presentation evaluated in detail, also replied to the question what went no so well? It might have generated some introspection. Evaluation of Audit meetings attended is not done, but evaluation of three audit projects undertaken and their presentations are done properly. Evaluated one teaching session out of 9 done in detail. Examples of letter of invitation for junior staff meeting and minutes of meeting enclosed. One short programme attended to develop leadership skills evaluated in detail. (Surprisingly no logbook summary, critical incidents, and personal development plans are provided)

Reflection: Reflection is mainly restricted to nature of learning and knowledge and skills acquired. At some places he had criticised the meetings and training programmes attended, but such reflections are mainly reflections on performance of others and not on performance of self. He had evaluated his performances in some cases but had not responded to questions such as “What went less well?” by avoiding such questions, reflection can not take place.

Portfolio of SpR no 34

Trainee is in final year of specialist training and member of 2 professional societies and had subscribed 2 journals. Could pass Part 2 of royal college exams in 5 attempts.

He had given details of U.K. anaesthetics training for SHO and SpR 1 to 4 grades, but had not described responsibilities held and special skills and knowledge gained. However, described in detail fellowship post held for one year. Not evaluated the failed attempt of Royal College Exams. One out of nine courses/ educational meetings were evaluated in detail. Evaluation of Audit meetings attended is not done, but evaluation of one audit project undertaken and its presentation is done properly. Undertook one research project and gave its details only in brief. Also provided details of four original research papers, one review article and four case reports. Evaluated in detail one teaching session under taken. Attended one short programme on ‘improving teaching skills’ and also evaluated it. As most of the other portfolios, sections

related with teamwork, communication skill and time management were left blank. Moreover, no logbook summary, critical incidents, and personal development plans were provided.

Reflection: There was no evidence of reflection as most of the sections were left blank. Mainly sections related with training undertaken were filled even in these sections questions related with special skills and knowledge gained and key responsibilities were left unanswered.

Portfolio of SpR no 35

Trainee was in first year of specialist training and member of four professional societies and had subscribed three journals. Could pass primary of royal college exams in first attempt and had to appear for the final part. Had undergone pre-registration training in general surgery and general medicine for six month each. And specialist training in 'General Medicine' for one year.

He had given details of pre-registration training, post registration training (none anaesthetic) and U.K. anaesthetics training for three years as SHO and SpR grade one, and also had described the work done during training in detail along with responsibilities held and special skills and knowledge gained during these training.. Attended ten educational meetings/courses in last three years but not evaluated any one of them. Neither attended any audits meetings nor undertook any audit project. Similarly not contributed to education or teaching and management activities, may be because trainee was still in first year of training. However trainee had started one research project and provided its detail in brief. Also published two research based papers and letter. Gave details of one unpublished article also but not evaluated it. Most of the remaining sections such as teamwork, time management and communication skills are left unfilled. Some parts of logbook summary are filled, provided but critical incidences and personal developmental plan are completely left blank.

Reflection:

Reflection is very minimal and is restricted to the progress in learning. Since most of the parts of the portfolio were left empty there was very little chance of reflection.

Appendix: xi a

Excerpts of Reflection in Portfolios of SpRs (taken from appendix xi)

Reflection in portfolio of SpR no 4:

She reflected on the nature and progress of training, but not on the individual performances in teaching sessions taken, medical audits conducted nor on the utility of educational and audit meetings attended. However, it can be inferred from her views that she had a concern for improving the status and popularity of the profession by improving practice.

“My particular areas of interest in education are increased recognition of value of anaesthesia in the undergraduate curriculum and the development of the concept of house officer in anaesthesia. My research reflects this interest and with this in mind, I am currently co-authoring a pilot workbook to guide senior medical students or house officers through an attachment to a department of anaesthesia.” (Page no 31 of the portfolio)

Yet, the language and style of the reflection indicate that SpR was more interested in showing her concern rather than reflecting on her practice.

Reflection in portfolio of SpR no 7:

Reflection is very minimal and is restricted to the progress in learning. However, reflection on other aspects like communication and management skills is also evident while reflection is offered in the following:

“ Gained confidence in the management and investigation of common paediatric medical and surgical conditions. I developed my communication skills with parents and children. Work on the maternity unit and the Special Care Baby Unit gave me valuable experience in the management of neonates. ”

Reflection in portfolio of SpR no 10:

Trainee had reflected minimally about knowledge and skills gained during training and discussion of medical audits reflected on practice. At one place he discussed the limitations of medicines:

“However, the case for alternatives appears far weaker than the proffered risk of continued use of nitrous, especially as environmental exposure is principally a problem of midwives, and no drug carries no risk.” (Page no. 27 of portfolio no. I)

As far as reflection on learning is concerned, it was limited to the nature and amount of learning and columns related to what went less well were left blank, while columns related to what went well were filled perhaps indicating problems in finding weaknesses compared to strengths.

Reflection in portfolio of SpR no 13

Reflection was limited to the nature of training and progress. There was very little reflection on practice and values. She had filled most sections but not in great detail. Moreover, important sections like critical incidents were left blank. However, she had evaluated the medical audits conducted and training programmes attended.

Reflection in portfolio of SpR no 18

Trainee had not reflected at all as since, for him, passing exams rather than preparing portfolio was the main priority.

Reflection in portfolio of SpR no 19

There no reflection since the trainee had filled only a few of the initial sections of the portfolio.

Reflection in portfolio of SpR no 21

Evaluation of critical reflection had resulted in some kind of reflection on practice, for example, he described his learning from the experience from one critical incident as:

“It could have been prevented by possibly keeping the patient under deeper plain of anaesthesia, I will remain extra careful with child having history of recent chest infection and croup. However, will continue to take Laryngeal mask out in children under deep plain of anaesthesia.” (Page 49 of portfolio)

However, in most of the other sections reflection was limited to progress and nature of learning.

Reflection in portfolio of SpR no 22

Reflection: This was the one of the most detailed portfolio. The trainee had also reflected about the quality of teaching learning process apart from the reflection on knowledge and skills gained during training. Trainee had also reflected on the problems faced during audit, at one place he reflected as:

“Despite the fact that over 1100 anaesthesia were given in this period only four forms filled in. It was felt that this number represented major underreporting and the format of the audit will be changed and the audit repeated. The audit failed to set standards at the outset. The data collection form was too detailed and may be why there was underreporting. The fact that audit had failed meant that practice could not be changed until a more powerful audit had been developed.” Page 62 of portfolio

However, even this SpR who had filled in detail most of the sections and reflected on most of the issues had not filled up sections related to time management, communication skills and teamwork. This shows that SpRs were most averse towards these sections.

Reflection in portfolio of SpR no 25

Trainee had reflected properly about knowledge and skills gained during training but had reflected minimally about his own strengths and weaknesses in teaching. At one place he challenged the present practice by giving a tutorial to emphasise that “identification and early management of sick patients can also be done by observing simple physical signs rather than high tech monitoring”. He also discussed about weakness and strengths of training programmes attended in different areas, reflected about a teamwork situation and appreciated that problems were mainly because of lack of proper communication.

Reflection in portfolio of SpR no 27

This trainee reflected minimally, limited to progress in training and nature of learning namely, about knowledge and skills gained during training. At some places, he reflected about his performance in meetings, presentations and audits but this reflection was neither in-depth nor detailed.

Reflection in portfolio of SpR no 31

Since most of the learning experiences were not evaluated, there was very little evidence of reflection. However, this trainee had described in detail the training he had undertaken and the knowledge and skills gained during it. This generated some reflection about the nature of learning in totality and progress made by him in acquiring professional knowledge and skills.

Reflection in portfolio of SpR no 32

There was minimal reflection about learning during training and about shortcomings in teaching done by him. However, evaluation of one critical incident has generated some kind of reflection on procedures adopted by him and resulted in change to his practice:

“On questioning her daughter, a history of previous postoperative vomiting was obtained.I am therefore, now more aggressive in intubating for patients for emergency procedures, especially where a clear history can not be obtained from the patient.” (Page 30, portfolio no. 32)

Reflection in portfolio of SpR no 33

Reflection is mainly restricted to nature of learning and knowledge and skills acquired. In some places, he criticised the meetings and training programmes attended, but such reflections were mainly reflections about performance of others and not his own. He evaluated his performances in some cases but did not respond to questions such as “What went less well?”

Reflection in portfolio of SpR no 35

Reflection was very minimal and restricted to progress in learning. Since most of the parts of the portfolio were left empty, there was very little chance of reflection.

Categories emerged from non-directed interviews of SpRs

Analysis of Non directed interviews revealed following categories. These categories may be grouped in six headings namely (I) SpRs perception about the PSLA, (II) Attitudes of SpRs towards formative assessment, learning and Portfolio (III) Portfolio Format (IV) Implementation of PSLA at QSA (V) Existing Assessment System (VI) PSLA and existing assessment system.

(I) SpRs' perceptions about the PSLA

- (i) Focuses attention on targets
- (ii) Provides map of growth
- (iii) May be used as CV Tool for assessing continuous professional development
- (iv) Another tool for summative assessment
- (v) Additional paper work
- (vi) Assessment of clinical activities

(II) Attitudes of SpRs towards formative assessment, learning and Portfolio

- (i) Conflict with existing images of learning and assessment
- (ii) Motivation level and attitude of self-directed learning
- (iii) Personal fears
- (iv) Social fears and barriers
- (v) It is insulting
- (vi) Sections related to interpersonal skills
- (vii) Reflection
- (viii) Self-assessment
- (ix) Images of what is important
- (x) Habit of record keeping

(III) Portfolio Format

- (i) Big Document: too detailed, too specific
- (ii) A structure for recording and review
- (iii) Separate Portfolio for SHOs
- (iv) Evaluation of minor activities

(IV) Implementation of PSLA at QSA

- (i) Misconceptions about preparing portfolio
- (ii) Problem in filling in it retrospectively (problem for senior SpRs)
- (iii) Priority to FRCA exams and clinical experience (Problem for junior SpRs)
- (iv) Repetition of Information with RITA and Appraisal Forms

(V) Existing Assessment System

- (i) RITA and appraisal
- (ii) Logbook
- (iii) Consultants' reports

(VI) PSLA and existing assessment system

- (i) Portfolio and logbook
- (ii) Portfolio, Appraisal and RITA
- (iii) Need for Comprehensive assessment

Categories emerged from focused Interviews of SpRs

Analysis of focused interviews generated following categories. These categories may be grouped as below:

(I) Use of portfolio

- (i) Dominance of External Motivation
- (ii) Relevance
- (iii) Lack of time and low priority for portfolio
- (iv) Too much record keeping
- (v) Misconception that portfolio is a permanent record
- (vi) Awareness about utility of portfolio
- (vii) Varied reasons for not preparing certain sections

(II) Effect of the portfolio on reflection

- (i) Frequency of reflection
- (ii) Role of the portfolio in engendering reflection
- (iii) Sharing reflections
- (iv) Writing about critical incidences

(III) Self-assessment: tension between portfolio and past experiences of assessment

- (i) Potential for self-assessment
- (ii) Effect of past experiences about assessment on self-assessment

(IV) Vision of professionalism

- (i) Managing clinical activities well
- (ii) Barriers to Continuous Professional Development (CPD)
- (iii) Role of non-clinical skills
- (iv) Limited reflection

(V) Learning from experience

(VI) Portfolio, RITA and Appraisal

(VII) Non-clinical components of training

- (i) Non-availability of time
- (ii) Lack of relevance
- (iii) Frequent rotation of trainees
- (iv) Curriculum implementation

(VIII) Preferences of trainees for different non-clinical activities

- (i) Teaching
- (ii) Audits
- (iii) Research
- (iv) Reading journals
- (v) Publishing in journals
- (vi) Managing the hospitals

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General Information

Name:

Current Hospital:

Date appointed to Specialist Registrar grade:

SpR Year of training: 1 2 3 4 5

Date you entered Year 3 (if applicable):

Expected CCST Date:

Appraisal Date:

Exam Details:

Primary FRCA month/year:

Final FRCA month/year:

Years in Anaesthesia (with details of hospitals & dates):

SHO.....

SHO.....

SpR 1.....

SpR 2.....

SpR 3.....

SpR 4.....

SpR 5.....

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Name:..... Appraisal Date:

SpR Year of training: 1 2 3 4 5

HOW CONFIDENT DO YOU FEEL IN THE FOLLOWING AREAS?

Area	Skilled, confident to teach	Able to undertake most cases solo	Done some but need more teaching
Acute Pain Management			
Cardiac			
Chronic Pain Management			
Dentals (Chair)			
Diagnostic procedures			
ECT			
ENT			
Epidural			
GU Surgery			
Gynaecology			
ICU			
Local techniques			
Maxillo-facial			
Neonates			
Nerve Blocks			
Neurosurgery			
Obstetrics			
Ophthalmology			
Orthopaedics			
Paediatric			
Plastics			
Spinal			
Thoracic			
Vascular Surgery			

Any other observations/remarks

.....
.....

Signature:

Date:

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Specialist Registrar Training Assessment

Name: SpR Year 1 2 3 4 5

Assessed Hospital: From: To:

Appraisal Date:

THE DEPARTMENT

On arrival did you have a formal introduction to the department? YES / NO

If NO, do you know why not?
.....

How long have you worked in this department?

Do you feel you have worked in the department long enough to comment on this department? YES / NO

Is the department friendly to work in? YES / NO

If NO, please give your reason?
.....

EXPOSURE TO THE SPECIALTIES OFFERED BY THIS HOSPITAL

Please complete as fully as possible, grading 1 - 3 as marked (1 = in adequate, 2 = adequate, 3 = good)

Specialty	Adequate exposure YES / NO	If NO, why not?	If YES, how good (1-3)

CONTACT WITH CONSULTANTS

Please complete as fully as possible, grading 1 - 3 as marked (1 = in adequate, 2 = adequate, 3 = good)

Generally, what is your relationship like with the Consultants? (1-3)

Teaching by Consultants: Formal: quantity (1-3) quality (1-3)

Informal: quantity (1-3) quality (1-3)

If teaching is poor, please say why and give suggestions of improvement:

.....

.....

.....

Have YOU ever asked for feedback? YES / NO

What feedback have you had from Consultants? NONE / INFORMAL / FORMAL

If you have received feedback, was it helpful? YES / NO

What areas did it cover?

.....

.....

.....

.....

ON-CALL

At what level is your on-call? 1st / 2nd / 3rd (covered or covering for a Consultant)

On average what rota are you working?

1 in 2 / 1 in 3 / 1 in 4 / 1 in 5 / over 1 in 5 / or partial shift

While on-call, do you get help when you wanted: YES / NO

If NO, please give your reason:

.....

.....

Have you ever felt unsupported?

.....

STUDY LEAVE

Have you ever been refused study leave? YES / NO

If YES, do you know why?
.....
.....

OTHER TRAINING ASPECTS

What other educational opportunities are available?
.....
.....

What general professional development have you had?
.....
.....

What do you think of the support and feedback you have received from this hospital?
.....
.....

SUMMARY

What is good about this placement?
.....
.....

Is there anything you would like to see improved in this attachment?
.....
.....

Any other comments you would like to make with regard to your attachment at this hospital:
.....
.....
.....
.....

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PREPARATION FOR APPRAISAL

Name:..... Appraisal Date:

SHO Year 1 2 3 SpR Year: 1 2 3 4 5 Other:

Good Medical Practice, relationship with colleagues and patients
(please bring portfolio, completed competency documents and logbook evidence)

WHAT DID YOU ACHIEVE LAST YEAR?

WHAT DID YOU WANT TO ACHIEVE LAST YEAR AND DIDN'T?

STUDY LEAVE TAKEN / MEETINGS ATTENDED?

AUDIT ACTIVITY, PRESENTATIONS:

ANY DIFFICULTIES IN DEALING WITH COLLEAGUES OR PATIENTS

DIFFICULTIES WITH PROBITY?

ANY DIFFICULTIES WITH YOUR HEALTH?

TRAINING ISSUES AND DEVELOPMENT PLAN

WHAT DO YOU WANT TO ACHIEVE NEXT YEAR?

HOW ARE YOU GOING TO DO THIS?

WHAT ARE YOUR STRENGTHS?

WHAT AREAS DO YOU NEED TO DEVELOP?

WHAT ARE YOUR CAREER ASPIRATIONS?

WHAT TRAINING NEEDSCAN YOU IDENTIFY FOR THE COMING YEAR?

POSSIBLE STUDY LEAVE REQUIREMENTS?

ANY OTHER ISSUES FOR DISCUSSION AT APPRAISAL?

Research Questions as a Basis for Field Work

- Q.1:** What is the general perception of SpRs about PBA? How gender, seniority, ethnicity and ability of SpR influence this perception?
- Q.2:** What are the problems faced by SpRs in PBA? How can it be improved?
- Q.3:** How do SpRs think about structure of portfolio and flexibility in it?
- Q.4:** Do they prefer it without format?
- Q.5:** What is the general perception of SpRs about existing assessment system?
- Q.6:** How does PBA fit into existing assessment system?
- Q.7:** How do SpRs perceive the role of non-clinical components of training in development of their clinical skills and professionalism?
- Q.8:** How does SpRs plan their training based on (a) their existing strengths and weaknesses (b) future requirements?
- Q.9:** Are SpRs self-directed enough?
- Q.10:** Is their non-clinical training coherent and well planned?
- Q.11:** How does high stake assessment like FRCA exams and RITA effect their learning?
- Q.12:** What they think about being a good consultant (attributes of a good consultant)?
- Q.13:** How much importance they give to thinking and planning about training and how much time they devote to this activity?
- Q.14:** Whether they give more importance to their own learning or to their ranking among the group? (whether NRT or CRT)

Q.15: What are the negative comments of a SpR, about PBA who generally seems to have positive attitude? Similarly what are the positive comments of the SpR who generally seems to have negative comment about whole issue. (compare each comment of individual with reference to all other comments by that individual)

Q.16: How trainees plan their training for specialization?

Table I. Summary of typology

Type of autonomy	Purposes/aims	Nature of Knowledge/ learning	Source of authority	Assessment-in-learning
Procedural/technical	Carry out procedures to meet predefined requirements	Transmission-teacher/test specifications	<i>Teacher/government centred</i>	<i>External</i> assignments, tests, definitions of quality and standards
	. Student/teacher view	(govt. agencies) -> student.	Learner dependent on external agencies who also define learning outcomes	
	. Specifications	Emphasis on quantity, breadth and replication of predefined knowledge		combined with some
	. Awarding body guidance.		combined with some	<i>Teacher/student interpretation</i> of choices within boundaries
Personal/ practical (as in own practice)	Meet own aims within set or predefined boundaries.		<i>Institutional/teacher</i> autonomy in designing learning in local context	
	Begin to define own aims outside boundaries and corresponding procedures to achieve them.	combined with some		<i>Emphasis on extrinsic motivation</i> summative checking and limited depersonalised feedback, systems, lists
		<i>Transacion</i> between learner, environment, teacher, texts and official guidance.	<i>Students accountable</i> for meeting requirements.	
Personal/ practical (as in own practice)	Insights into own strengths and weaknesses of procedural autonomy	<i>Transmission</i>	Students <i>responsible</i> for own work within external boundaries.	<i>External</i> standards etc. but broader boundaries too
	Deeper reflection on strengths/weaknesses: affective, cognitive, practical.	but emphasis on <i>Transacion/</i>		. <i>Portfolios</i>
	Awareness of options and interests, possibilities for progression.	<i>Construction/partnership</i>	<i>Responsible</i> for own learning and for setting targets.	. <i>Use of ipsative assessment</i>
	Self-management and self-direction.	Over external requirements but also about learning strategies, negotiation of what counts as knowledge etc.		. <i>Peer</i> assessment: some differentiated personalised feedback to individuals
Critical	Awareness of wider <i>context</i> and moral dilemmas in professional or occupational practice.	Greater degree of negotiation about outcomes, aims, processes etc.	<i>Peer commitment</i> to work of other learners.	. <i>Negotiation</i> of standard and evidence
				. <i>Emphasis on both extrinsic/intrinsic forms of motivation</i>
Critical	Ability to form judgments about subject content and growing expertise in it.	<i>Transformation</i>	Community of learners where authority shifts from teacher.	•Combination of assessment but emphasis on self and peer-assessment
	Cognitive synthesis and evaluation.	Knowledge is dynamic, changing and increasingly reconstructed by learner.	Complexity, creativity and openness are emphasised.	. <i>Negotiated external and ipsative</i> standards
	Awareness of subject knowledge in a wider context.	Knowing is contextual.	Transmitted knowledge is genuinely open to critique	Deep internalisation of what counts as external standard, 'critical conversation' between teacher/learner, emphasis on questioning individualised feedback
	Social commitments and sense of responsibility to a community (professional or social).	Combinations of formal and informal discourse in a community of learners (teacher/students/colleagues). Attention to opportunities for higher order questioning and self-generated questions from students.	Intrinsic standards of rationality and communication between teacher/students: these are both implicit and explicit but become	. <i>Primary emphasis is on intrinsic</i> (+ <i>possible social motivation</i>)

PERSPECTIVES

Medical Professionalism in the New Millennium: A Physician Charter

Project of the ABIM Foundation, ACP-ASIM Foundation, and European Federation of Internal Medicine'
(Intern Med., 2002; 136:243-246)

To our readers:

I write briefly to introduce the Medical Professionalism Project and its principal product, the Charter on Medical Professionalism. The charter appears in print for the first time in this issue of *Annals* and simultaneously in *The Lancet*. I hope that we will look back upon its publication as a watershed event in medicine. Everyone who is involved with health care should read the charter and ponder its meaning.

The charter is the product of several years of work by leaders in the ABIM Foundation, the ACP-ASIM Foundation, and the European Federation of Internal Medicine. The charter consists of a brief introduction and rationale, three principles, and 10 commitments. The introduction contains the following premise: Changes in the health care delivery systems in countries throughout the industrialized world threaten the values of professionalism. The document conveys this message with chilling brevity. The authors apparently feel no need to defend this premise, perhaps because they believe that it is a universally held truth. The authors go further, stating that the conditions of medical practice are tempting physicians to abandon their commitment to the primacy of patient welfare. These are very strong words. Whether they are strictly true for the profession as a whole is almost beside the point. Each physician must decide if the circumstances of practice are threatening his or her adherence to the values that the medical profession has held dear for many millennia.

Three Fundamental Principles set the stage for the heart of the charter, a set of commitments. One of the three principles, the principle of primacy of patient welfare, dates from ancient times. Another, the principle of patient autonomy, has a more recent history. Only in the later part of the past century have people begun to view the physician as an advisor, often one of many, to an autonomous patient. According to this view, the center of patient care is not in the physician's office or the hospital. It is where people live their lives, in the home and the workplace. There, patients make the daily choices that determine their health. The principle of social justice is the last of the three principles. It calls upon the profession to promote a fair distribution of health care resources.

There is reason to expect that physicians from every point on the globe will read the charter. Does this document represent the traditions of medicine in cultures other than those in the West, where the authors of the charter have practiced medicine? We hope that readers everywhere will engage in dialogue about the charter, and we offer our pages as a place for that dialogue to take place. If the traditions of medical practice throughout the world are not congruent with one another, at least we may make progress toward understanding how physicians in different cultures understand their commitments to patients and the public.

Many physicians will recognize in the principles and commitments of the charter the ethical underpinning of their professional relationships, individually with their patients and collectively with the public. For them, the challenge will be to live by these precepts and to resist efforts to impose a corporate mentality on a profession of service to others. Forces that are largely beyond our control have brought us to circumstances that require ~ restatement of professional responsibility. The responsibility for acting on these principles and commitments lies squarely on our shoulders.

Harold C. Sox, MO, Editor

Physicians today are experiencing frustration as changes in the health care delivery, systems in virtually all industrialized countries threaten the very nature and values of medical professionalism. Meetings among the European Federation of Internal Medicine, the American College of Physicians – American Society of Internal Medicine (ACP-ASIM), and the American Board of Internal Medicine (ABIM) have confirmed that physician views on professionalism are similar in quite diverse systems of health care delivery. We share the view that medicine's commitment to the patient is being challenged by external forces of change within our societies.

Recently, voices from many countries have begun calling for a renewed sense of professionalism, one that is activist in reforming health care systems. Responding to this challenge, the European Federation of Internal Medicine, the ACP-ASIM Foundation, and the ABIM Foundation combined efforts to launch the Medical Professionalism Project (www.professionalism.org) in late 1999. These three organizations designated members to develop a "charter" to encompass a set of principles to which all medical professionals can and should aspire. The charter supports physicians' efforts to ensure that the health care systems and the physicians working within them remain committed both to patient welfare and to the basic tenets of social justice. Moreover, the charter is intended to be applicable to different cultures and political systems.

Preamble

Professionalism is the basis of medicine's contract with society. It demands placing the interests of patients above those of the physician, setting and maintaining standards of competence and integrity, and providing expert advice to society on matters of health. The principles and responsibilities of medical professionalism must be clearly understood by both the profession and society. Essential to this contract is public trust in physicians, which depends on the integrity of both individual physicians and the whole profession.

At present, the medical profession is confronted by an explosion of technology, changing market forces, problems in health care delivery, bioterrorism, and globalization. As a result, physicians find it increasingly difficult to meet their responsibilities to patients and society. In these circumstances, reaffirming the fundamental and universal principles and values of medical professionalism, which remain ideals to be pursued by all physicians, becomes all the more important.

The medical profession everywhere is embedded in diverse cultures and national traditions, but its members share the role of healer, which has roots extending back to Hippocrates. Indeed, the medical profession must contend with complicated political, legal, and market forces. Moreover, there are wide variations in medical delivery and practice through which any general principles may be expressed in both complex and subtle ways. Despite these differences, common themes emerge and form the basis of this charter in the form of three fundamental principles and as a set of definitive professional responsibilities.

Fundamental Principles

Principle of primacy of patient welfare. This principle is based on a dedication to serving the interest of the patient. Altruism contributes to the trust that is central to the physician-patient relationship. Market forces, societal pressures, and administrative exigencies must not compromise this principle.

Principle of patient autonomy. Physicians must have respect for patient autonomy. Physicians must be honest with their patients and empower them to make informed decisions about their treatment. Patients' decisions about their care must be paramount, as long as those decisions are in keeping with ethical practice and do not lead to demands for inappropriate care.

Principle of social Justice. The medical profession must promote Justice in the health care system, including the fair distribution of health care resources. Physicians should work actively to eliminate discrimination in health care, whether based on race, gender, socioeconomic status, ethnicity, religion, or any other social category.

A Set of Professional Responsibilities

Commitment to professional competence. Physicians must be committed to lifelong learning and be responsible for maintaining the medical knowledge and clinical and team skills necessary for the provision of quality care. More broadly, the profession as a whole must strive to see that all of its members are competent and must ensure that appropriate mechanisms are available for physicians to accomplish this goal.

Commitment to honesty with patients. Physicians must ensure that patients are completely and honestly informed before the patient has consented to treatment and after treatment has occurred. This expectation does not mean that patients should be involved in every minute decision about medical care; rather, they must be empowered to decide on the course of therapy. Physicians should also acknowledge that in health care, medical errors that injure patients do sometimes occur. Whenever patients are injured as a consequence of medical care, patients should be informed promptly because failure to do so seriously compromises patient and societal trust. Reporting and analyzing medical mistakes provide the basis for appropriate prevention and improvement strategies and for appropriate compensation to injured parties.

Commitment to patient confidentiality. Earning the trust and confidence of patients requires that appropriate confidentiality safeguards be applied to disclosure of patient information. This commitment extends to discussions with persons acting on a patient's behalf when obtaining the patient's own consent is not feasible. Fulfilling the commitment to confidentiality is more pressing now than ever before, given the widespread use of electronic information systems for compiling patient data and an increasing availability of genetic information. Physicians recognize, however, that their commitment to patient confidentiality must occasionally yield to overriding considerations in the public interest (for example, when patients endanger others).

Commitment to maintaining appropriate relations with patients. Given the inherent vulnerability and dependency of patients, certain relationships between physicians and patients must be avoided. In particular, physicians should never exploit patients for any sexual advantage, personal financial gain, or other private purpose.

Commitment to improving quality of care. Physicians must be dedicated to continuous improvement in the quality of health care. This commitment entails not only maintaining clinical competence but also working collaboratively with other professionals to reduce medical error, increase patient safety, minimize overuse of health care resources, and optimize the outcomes of care. Physicians must actively participate in the development of better measures of quality of care and the application of quality measures to assess routinely the performance of all individuals, institutions, and systems responsible for health care delivery. Physicians, both individually and

through their professional associations, must take responsibility for assisting in the creation and implementation of mechanisms designed to encourage continuous improvement in the quality of care.

Commitment to improving access to care. Medical professionalism demands that the objective of all health care systems be the availability of a uniform and adequate standard of care. Physicians must individually and collectively strive to reduce barriers to equitable health care. Within each system, the physician should work to eliminate barriers to access based on education, laws, finances, geography, and social discrimination. A commitment to equity entails the promotion of public health and preventive medicine, as well as public advocacy on the part of each physician, without concern for the self-interest of the physician or the profession.

Commitment to a just distribution of finite resources. While meeting the needs of individual patients, physicians are required to provide health care that is based on the wise and cost-effective management of limited clinical resources. They should be committed to working with other physicians, hospitals, and payers to develop guidelines for cost-effective care. The physician's professional responsibility for appropriate allocation of resources requires scrupulous avoidance of superfluous tests and procedures. The provision of unnecessary services not only exposes one's patients to avoidable harm and expense but also diminishes the resources available for others.

Commitment to scientific knowledge. Much of medicine's contract with society is based on the integrity and appropriate use of scientific knowledge and technology. Physicians have a duty to uphold scientific standards, to promote research, and to create new knowledge and ensure its appropriate use. The profession is responsible for the integrity of this knowledge, which is based on scientific evidence and physician experience.

Commitment to maintaining trust by managing conflicts of interest. Medical professionals and their organizations have many opportunities to compromise their professional responsibilities by pursuing private gain or personal advantage. Such compromises are especially threatening in the pursuit of personal or organizational interactions with for-profit industries, including medical equipment manufacturers, insurance companies, and pharmaceutical firms. Physicians have an obligation to recognize, disclose to the general public, and deal with conflicts of interest that arise in the course of their professional duties and activities. Relationships between industry and opinion leaders should be disclosed, especially when the latter determine the criteria for conducting and reporting clinical trials, writing editorials or therapeutic guidelines, or serving as editors of scientific journals.

Commitment to professional responsibilities. As members of a profession, physicians are expected to work collaboratively to maximize patient care, be respectful of one another, and participate in the processes of self-regulation, including remediation and discipline of members who have failed to meet professional standards. The profession should also define and organize the educational and standard-setting process for current and future members. Physicians have both individual and collective obligations to participate in these processes. These obligations include engaging in internal assessment and accepting external scrutiny of all aspects of their professional performance.

Summary

The practice of medicine in the modern era is beset with unprecedented challenges in virtually all cultures and societies. These challenges center on increasing disparities among the legitimate needs of patients, the available resources to meet those needs, the increasing dependence on market forces to transform health care systems, and the temptation for physicians to forsake their traditional commitment to the primacy of patients' interests. To maintain the fidelity of medicine's social contract during this turbulent time, we believe that physicians must reaffirm their active dedication to the principles of professionalism, which entails not only their personal commitment to the welfare of their patients but also collective efforts to improve the health care *system* for the welfare of society. This Charter on Medical Professionalism is intended to encourage such dedication and to promote an action agenda for the profession of medicine that is universal in scope and purpose.

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